



NEOGARD[®]

Application Manual

Waterproofing & Deck Coating Systems • November 2017





Introduction

Dear NEOGARD® Customer,

This manual covers many important technical aspects of NEOGARD® Waterproofing and Deck Coating systems and is intended for all Applicator personnel who are involved in selling, estimating, administration and application.

It is our intention to make changes and additions to this handbook as technology evolves. For specific application questions or technical assistance, contact the NEOGARD® Technical Service Department by phone at (214) 353-1600, or use the contact form at <http://www.neogard.com/Contact>. Additional technical resources are also available at <http://www.neogard.com>.

Thank you for your help in making this manual possible.

Your NEOGARD® Team



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Project and Substrate Conditions

Project Conditions

For on-grade applications, substrates constructed over unvented metal decks or split-slab applications, contact the NEOGARD® Technical Service Department for specific project-related recommendations. Many factors, including concrete mix design and placement, presence of a vapor barrier and environmental conditions, determine the suitability for coating these conditions.

- Prior to starting work, read and follow the Safety Data Sheets (SDS) and container labels for detailed health and safety information.
- Do not proceed with application of materials when substrate temperature is less than 40°F (4°C), if precipitation is imminent, or to a damp, unclean or frosty surface. Ambient temperature should be a minimum 40°F (4°C) and rising, and more than 5° (3°C) above dew point. Special precautions are to be taken when ambient and/or substrate temperatures are approaching, at, or above 100°F (37°C) and it may be necessary to limit material application to evening hours for exterior exposed decks.
- Coordinate waterproofing work with other trades. Applicator shall have sole right of access to the specified area for the time needed to complete the application and allow the traffic coatings to cure adequately.
- Protect plants, vegetation or other surfaces not to be coated, against damage or soiling. It is much easier to keep coating off adjacent surfaces during application than to remove it after cure.
- Keep products away from spark or flame. Do not allow the use of spark-producing equipment during application and until all vapors have dissipated. Post “No Smoking” signs.
- Maintain the work area in a neat and orderly condition, removing empty containers, rags and rubbish daily from the site.

Concrete

Verify that the work done under other sections meets the following requirements:

- The concrete deck surface is free of ridges and sharp projections. If metal decks are used, they should be ventilated to permit adequate drainage of any trapped moisture.
- The concrete was cured for a minimum of 28 days. Minimum compressive strength: 3,000 psi for pedestrian traffic, 4,000 psi for vehicular traffic. Water-cured treatment of concrete is preferred. The use of concrete curing agents, if any, shall be of the sodium silicate base only; others require written approval by NEOGARD®.
- The concrete was finished by a power or hand steel trowel followed by soft hair broom to obtain light texture or “sidewalk” finish similar to photo below.

Light texture or sidewalk finish



- Damaged areas of the concrete deck are restored to match adjacent areas. Use 100% solids epoxy and sand for filling and leveling. See “Concrete Patching” in the Surface Preparation section of this manual.

Plywood

Verify that the plywood deck work done under other sections meets the following requirements:

- Plywood is of exterior grade quality and minimum B-C grade with B side to receive coating. Plywood shall be at least 5/8” thick. Tongue and groove plywood is preferred.
- Joist spacing beneath plywood deck has a maximum spacing of 16” O.C.
- It is recommended that a bead of 70991 or 70995 polyurethane sealant be laid on the joist with the plywood decking installed immediately on top of the wet sealant.
- Plywood imperfections are filled with 70991 or 70995 polyurethane sealant.
- Spiral or coated nails are used and are driven flush with the surface of plywood. Nails shall not be countersunk.
- A maximum of 1/16” space between sheets of plywood is maintained while deck is being placed.
- Plywood decking is to be covered as soon as possible after installation.

Field Sample

- Install a field sample of at least 100 square feet at the project or pre-selected area as agreed to by owner’s representative, applicator and manufacturer.
- Apply material in accordance with written application instructions.
- Field sample will be the standard for judging color and texture on remainder of project.
- Maintain field sample during construction for workmanship comparison.
- Do not alter, move, or destroy field sample until work is completed and approved by Owner’s representative.



Surface Preparation

Concrete: New Construction

General Construction Practices

- Surfaces to receive Auto-Gard systems must be a minimum compressive strength of 4,000 psi concrete.
- Surfaces to receive Peda-Gard systems must be a minimum compressive strength of 3,000 psi concrete.
- Insulating concrete (Zonolite, Vermiculite, Perlite, etc.) must never be coated directly with surface applied waterproofing.
- Concrete must have a full 28-day cure period prior to coating.

Finish Requirements

- The deck must be steel troweled with power or hand trowel. Finish concrete by lightly pulling a soft hair broom over the surface to leave a light texture. No projections or voids should be present in the concrete surface.
- If the concrete finish is rougher or smoother than a light hair broom finish, consult NEOGARD® for additional surface preparation procedures.
- Water curing of deck is the preferred method. However, if a curing compound is to be used, it must be of the sodium silicate type. Other types of curing compounds require prior written approval by NEOGARD®. Chlorinated rubber, wax or resin based curing compounds must not be used.
- Deck must be free from contaminants such as oils, tars, asphalts, grease, dirt, etc., prior to coating.

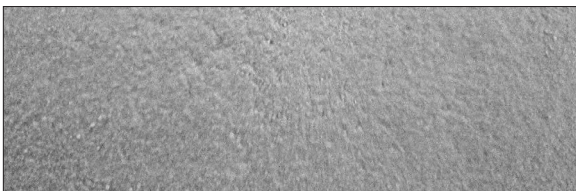
Methods for Preparing Concrete Deck

Shot-Blasting

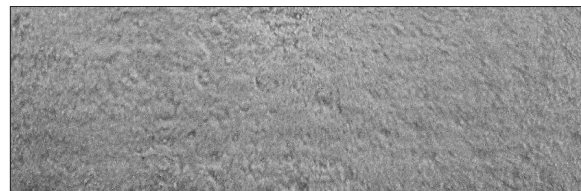
- Shot-blasting is the preferred method to remove laitance from concrete surfaces. Proper care and procedure should be taken to leave the concrete surface as unopened as possible. Shot-blasting is also preferred over sandblasting to remove an unacceptable curing compound. Mechanically prepare surface by shot-blasting to industry standard surface texture—ICRI CSP3 or CSP4—without causing additional surface defects in deck surface. See the example photos below.

Note: Shot-blasting does not remove deep penetrating oils, grease, tar or asphalt stains. Proper cleaning procedures should be followed to ensure proper bonding of the deck coating.

ICRI CSP3



ICRI CSP4



- Shot-blasting does not replace acid etching on expansive type concrete decks.
- Improper shot-blasting can destroy the surface finish of the concrete. Overly-blasted concrete can contain voids or pinholes which can result in blister problems during coating application. It may also require extra coats of additional material to correctly “profile” the rough surface.

Important: The coverage rates for NEOGARD® traffic deck coatings are for a properly prepared concrete deck. Any deficiency will reduce the effective coverage rate of the materials.

Hydro-Blasting

(Alternative preparation for concrete substrates intended to receive pedestrian traffic-bearing systems ONLY)

- If shot-blasting is not practical, hydro-blasting is an alternative method of surface preparation for a concrete substrate that will receive a pedestrian traffic-bearing system.
- Use a minimum of 4,000 psi spray at tip, within 6" of substrate to prepare surface by hydro-blasting to industry standard surface texture (ICRI's CSP3–CSP4) without causing additional surface defects in deck.
- Rinse thoroughly to ensure all residue is removed from the surface.
- Allow deck to completely dry prior to application of deck coating materials.

Acid Etching

- Acid etching is used to remove laitance from concrete surfaces.
- **Acid etching has limitations.** Acid will not cut through oil and grease, curing or sealing compounds, paints, heavy dust or dirt accumulation. These contaminants must be removed before etching. Scrub with detergents or use appropriate solvents depending on the type of contaminate.
- Pre-wet the concrete surface prior to applying etching solutions. Using a hose with a fine spray nozzle, apply water uniformly across the concrete until the surface is wet but no standing water is present. The concrete should remain wet until the acid solution is applied.
- Acid etch deck with 18° to 20° Baume muriatic acid and water mixed 1:1. **Always pour acid into water; never water into acid.** Evenly distribute acid solution over entire deck from plastic sprinkling cans at a rate of one gallon acid solution to 40 square feet of deck. As the acid is reacting or foaming, vigorously scrub with a nylon or plastic bristle broom. Use caution so that spent acid solution does not wet floor prior to application of fresh acid. As soon as acid stops foaming, immediately rinse thoroughly with large amounts of water. **Do not allow acid solution to dry on the deck.** Any soluble salt formed by the acid acting on the concrete that remains on the surface will affect the bond of the deck coatings to the substrate, particularly in the low spots, where water "puddles". All traces of soluble salts must be removed.

Note: If acid does not "boil" or "foam", there may be a curing compound or other contaminant present. Consult NEOGARD® before proceeding.

- Allow deck to completely dry after flushing with water (usually overnight). Check for "salty" spots of residue left after concrete has dried. If any are present, use water, brooms and a vacuum to remove.

Sandblasting

- Sandblasting is recommended only as a last resort (in lieu of acid etching or shot-blasting) or when necessary to remove an unacceptable curing compound.
- Sandblasting does not replace acid etching on expansive type concrete decks.
- Sandblasting can cause "pinholes" in concrete surfaces which could cause blister problems during coating application and in the finished system.
- Can be used to remove incompatible striping paint from deck prior to application of surface applied waterproofing.

Sandblast Pot



Concrete Patching

- Very few repairs should be necessary in new concrete if the slab is placed according to specifications, but minor imperfections must be corrected. There are many projects that the applicator is contracted to do after the structure is complete and the decks were improperly finished, not anticipating the use of a surface applied waterproofing system. Ridges and sharp projections should be ground off and pits, holes and low spots should be filled with 70714/70715 series epoxy and sand mixture at a ratio of one part epoxy to four parts sand in accordance with the "Epoxy Patching" and "Surface Conditioners for Structural Concrete Decks" sections of this Application Manual. See the example photos shown below. The repairs should be done after any chemical cleaning or acid etching treatments and the epoxy patch allowed to cure approximately one day at 75°F (23°C)–80°F (26.6°C).

- One gallon of mixed epoxy mixed with four gallons of 20-40 mesh clean, dry sand will yield approximately 6.42 square feet of epoxy patching material at one inch thickness.

Pit in concrete



Pit patched with epoxy and sand



Cracks and Cold Joint Preparation

- Visible hairline cracks (up to 1/16" in width) in concrete and cold joints shall be cleaned, primed and treated with polyurethane deck coating material extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils.
- Large cracks (over 1/16" in width) shall be routed, blown clean, and filled flush with 70991 or 70995 polyurethane sealant. Sealant shall be applied to inside area of crack only, not applied to deck surface. After sealant has cured, detail sealed cracks with polyurethane Base Coat material extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils. **Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.**

Control Joint Preparation

- Seal control joints equal to or less than 1" in width with 70995 polyurethane sealant. Be sure to maintain proper ratio of width to depth. After the sealant has cured, detail sealed joints with polyurethane Base Coat material extended a minimum distance of 2" on either side of joint to yield thickness of 30 dry mils. Preparation and treatment of joints > 1" in width is beyond the scope of this Application Manual and an expansion joint manufacturer should be consulted for those applications.

Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.

Concrete: Remedial Construction

General Construction Practices

- Surfaces to receive Auto-Gard systems must be a minimum of 4,000 psi compressive strength concrete.
- Surfaces to receive Peda-Gard systems must be a minimum of 3,000 psi compressive strength concrete.
- Insulating concrete (Zonolite, Vermiculite, Perlite, etc.) must never be coated directly with surface applied waterproofing.
- Concrete patches must have a full 28-day cure period prior to coating.
- Surfaces must be sound and dry. Remove all delaminated or scaled concrete, paint, tar, asphalt, grease, dirt, waxes, oils, etc., as may be necessary to establish a clean, dry substrate.

Finish Requirements

- Existing deck should have the same finish as a new deck. No projections or voids should be present in the concrete surface.

- If the concrete finish is rougher or smoother than a light hair broom finish, consult NEOGARD® for additional surface preparation procedures.
- Water curing of structural concrete patches is the preferred method. However, if a curing compound is to be used, it must be of the sodium silicate type. Other types of curing compounds require prior written approval by NEOGARD®. Chlorinated rubber, wax or resin based curing compounds must not be used.
- Deck must be free from contaminants such as oils, tars, asphalts, grease, dirt, etc., prior to coating. Solvent based products are incompatible with asphaltic compounds.

Methods for Preparing Existing Concrete Deck

- Deck should be cleaned using NEOGARD® 8500 BioDegradable Cleaner (BDC) concentrate with water, and stiff bristle brooms or a power scrubber. Completely rinse away residue. Scrub solution with stiff bristle broom and allow to stand for approximately 15 minutes. Do not allow the solution to dry. Thoroughly rinse to remove all residue.
- Heavily contaminated areas may require mechanical grinding or chipping before washing.
- Shot-blast, acid etch or sandblast deck as follows:

Shot-Blasting (Preferred for Remedial Application)

- Proper care and procedure should be taken to leave the concrete surface as unopened as possible. Shot-blasting is the preferred method to remove unacceptable curing compounds. Mechanically prepare surface by shot-blasting to industry standard surface texture (ICRI's CSP3 or CSP4) without causing additional surface defects in deck surface.
- Shot-blasting does not replace acid etching on expansive type concrete decks.
- Improper shot-blasting may cause "pinholes" in concrete surfaces which can result in blister problems during coating application and in the finished system.
- Shot-blasting will not remove projections on surface of concrete. These should be ground off prior to coating application.

Note: Shot-blasting does not remove deep penetrating oil, grease, tar or asphalt stains. Proper cleaning procedures should be followed to ensure proper bonding of the deck coating.

Hydro-Blasting

(Alternative preparation for concrete substrates intended to receive pedestrian traffic-bearing systems ONLY)

- If shot-blasting is not practical, hydro-blasting is an alternative method of surface preparation for a concrete substrate that will receive a pedestrian traffic-bearing system.
- Use a minimum of 4,000 psi spray at tip, within 6" of substrate to prepare surface by hydro-blasting to industry standard surface texture (ICRI's CSP3 or CSP4) without causing additional surface damage.
- Proper cleaning procedures must be followed to ensure bonding of the deck coating. Rinse thoroughly to ensure all residue is removed from the surface.
- Allow deck to completely dry prior to application of deck coating materials.

Sandblasting

- Sandblasting is recommended only as a last resort (in lieu of shot-blasting or acid etching) or when necessary to remove an unacceptable curing compound. Sandblasting does not replace acid etching on expansive type concrete decks.
- Sandblasting can cause "pinholes" in concrete surfaces which could cause blister problems during coating application and in the finished system.
- Sandblasting can be used to remove incompatible striping paint from deck prior to application of surface applied waterproofing.

Concrete Patching and Concrete Replacement

- Patching of concrete in remedial applications is usually required. Ridges and sharp projections should be ground off and pits, holes and low spots should be filled with 70714/70715 series epoxy and sand mixture at a ratio of one part epoxy to four parts sand in accordance with the "Epoxy Patching" and "Surface Conditioners for Structural Concrete Decks" sections of this Application Manual. The repairs

should be done after any chemical cleaning or acid etching treatments and the epoxy patch allowed to cure approximately one day at 75°F (23°C) to 80°F (26.6°C).

- One gallon of mixed epoxy mixed with four gallons of 20-40 mesh clean dry sand will yield approximately 6.42 square feet of epoxy patching material at one inch thickness.

Cracks and Cold Joint Preparation

- Visible hairline cracks (up to 1/16" in width) in concrete and cold joints shall be cleaned, primed and treated with polyurethane Base Coat material extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils.
- Large cracks (over 1/16" in width) shall be routed, blown clean, and filled flush with 70991 or 70995 polyurethane sealant. Sealant shall be applied to inside area of crack only, not applied to deck surface. After sealant has cured, detail sealed cracks with polyurethane Base Coat material extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils.

Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.

Control Joint Preparation

- Seal control joints equal to or less than 1" in width with 70995 polyurethane sealant. Be sure to maintain ratio of width to depth. After sealant has cured, detail sealed cracks with polyurethane Base Coat material extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils. Preparation and treatment of joints > 1" in width is beyond the scope of this Application Manual and an expansion joint manufacturer should be consulted for those applications.

Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.

Plywood: New Construction

General Construction Practices

- Plywood should be minimum B-C exterior grade and a minimum of 5/8" thickness with joist spacing 16" on center. "B" side to be exposed to receive the coating system.
- Nails should not be countersunk, but simply nailed flush.
- Nails used should be spiral or "non-backing" nails (coated).
- A joint of 1/16" to 1/8" should be left between sheets. Tongue and groove plywood is available with 1/16" joint built in.
- It is recommended that a bead of 70991 or 70995 polyurethane sealant be laid on the joist with the plywood decking installed immediately on top of the wet sealant.
- Plywood imperfections are filled flush with 70991 or 70995 polyurethane sealant.
- Pressure treated or "Wolmanized" plywood requires a six month aging period to allow proper adhesion.

Joint Preparation

- Joints at changes in plane or expansion details should be detailed with 86218 Flashing Tape. Joints should be caulked flush with 70991 or 70995 polyurethane sealant and detailed with polyurethane Base Coat material with 86220 Tietex reinforcement fabric embedded into wet coating. Extend detail coat a minimum distance of 3" on either side of joint. Apply additional Base Coat material as required to fully encapsulate fabric and smooth out wrinkles. **Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.**

Plywood: Remedial Construction

General Construction Practices

- Ensure joint spacing, nailing methods, etc. are consistent with or exceed general construction practices for new plywood. Consult NEOGARD® Technical Services if this is not the case and cannot be readily corrected.

- Existing plywood decks must be absolutely clean and free of dust, oil, asphalt, grease, and old paint. This can usually be done with a floor sander. Lift all debris with a vacuum.
- Plywood imperfections are filled flush with 70991 or 70995 polyurethane sealant.

Joint Preparation

- Joints at changes in plane or expansion details should be detailed with 86218 Flashing Tape. Joints should be caulked flush with 70991 or 70995 polyurethane sealant and detailed with polyurethane Base Coat material with 86220 Tietex reinforcement fabric embedded in wet coating. Extend detail coat a minimum distance of 3" on either side of joint. Apply additional Base Coat material as required to fully encapsulate fabric and smooth out wrinkles.

Note: Cured sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe.

Metal Surfaces: Vents, Pipes, Drains, Flashing, Etc.

Ferrous Metal (Carbon Steel)

- Surface must be wire brushed, ground with wire wheels or sandblasted to a near-white metal blast finish. This is the removal of all visible rust, mill scale, paint and other foreign matter from the surface.
- Prime metal with Ureprime HS4 in strict accordance with procedures recommended by NEOGARD®.

Galvanized Steel and Other Non-Ferrous Metals

- Remove dust and dirt by blowing off the surface with high pressure (oil-free) air or wiping with clean dry rags. Oil, grease and protective mill coatings should be removed by solvent cleaning. White rust should be removed from galvanized steel by hand or power brushing. Care should be taken not to damage or remove the galvanizing. Rust should be removed from old galvanized steel by hand or power tool cleaning.
- Prime metal with Ureprime HS4 in strict accordance with procedures recommended by NEOGARD®.

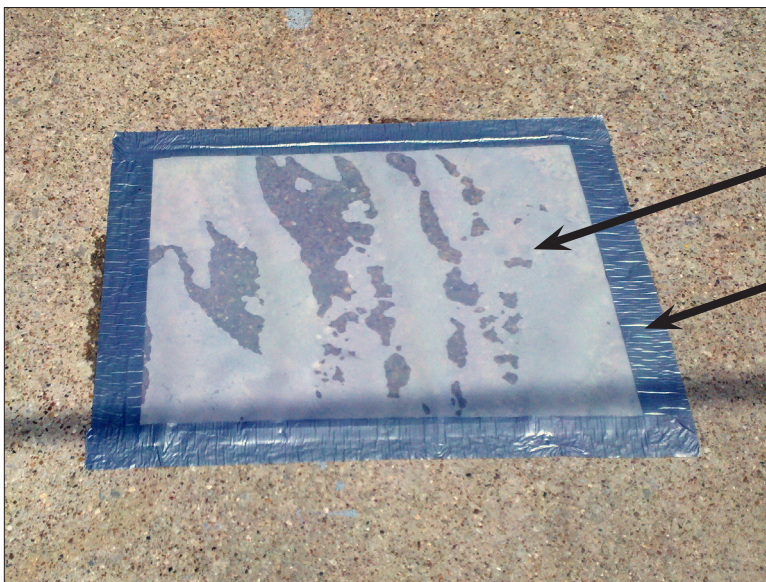


Concrete Moisture Testing

New concrete should not be coated for at least 28 days to permit the concrete to cure and dry out. **All slab-on-grade applications should be tested to determine if excessive moisture vapor is being transmitted through the slab.** Free water and soluble alkaline salts remaining in the concrete may attack fresh coatings and/or eventually cause delamination, blistering, peeling or efflorescence staining.

Concrete should be tested for moisture content before coating. While there is no fully reliable method for determining if concrete is dry enough to coat, there are several test methods that can be performed prior to the installation of a deck coating system to check for levels of moisture in the concrete substrate. Note that the feel or appearance of the surface can be highly deceiving. The ASTM D4263 method described below is used for testing substrates to receive deck coatings. NEOGARD® recommends ASTM test procedures.

ASTM D4263 Plastic Sheet Test Method



Heavy Gauge Clear Plastic

Duct Tape

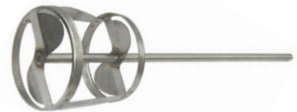
- Securely tape a 4 ft. x 4 ft. sheet of clear polyethylene film to the surface as shown in *Example 6* above. The plastic film will act as a moisture barrier and trap any moisture migrating through the concrete. The tape will prevent the escape of any moisture or vapor that is trapped behind the film. **Carefully apply the tape to prevent any trapped moisture or vapor from escaping.**
- Keep the film in place for 24 hours. The test area must be kept shaded for duration of test per ASTM procedures.
- Condensation on the back side of the film, or dark, damp or wet concrete under the film indicates the presence of moisture in the concrete as demonstrated in *Example 6* above. If the test area shows there is moisture, do not proceed with coating application until the concrete is re-tested and the test shows it to be dry.
- Pieces of test film should be placed at various locations that are likely to be slow drying out, such as below grade, low spots in deck, inside corners and lower wall areas.



Product Mixing Instructions

Note: Use a low-to-medium speed drill and a Jiffy Mixer, shown at right, to mix all materials thoroughly. Mixing at too high rate of speed or with the wrong mixer can introduce air bubbles into the coating. These bubbles may develop into blisters during application.

Jiffy Mixer



Single Component Polyurethane Coatings

- Read labels and Application Manual prior to mixing materials.
- The accelerator or small container is always to be added to the color side; one gallon containers in 55's and half pint and pint containers in 5's in accordance with the Additives section of this Application Manual.
- Always pre-mix the color side thoroughly prior to the addition of the accelerator. Pre-mix 55 gallon drums for 5 to 10 minutes and 5 gallon pails for 3–5 minutes. Time will vary depending on temperature conditions.
- Add the accelerator slowly at the end of the pre-mix time while still mixing. After all of the accelerator has been added, continue to mix the material for a minimum of 20 minutes for 55 gallon drums and a minimum of 5 minutes for 5 gallon pails. Time will vary depending on temperature conditions.
- Any thinning of the materials should come after the materials are mixed. Do not thin materials more than 10%. See “Thinning and Cleaning Solvents” in the Support Information section of this Application Manual.

Two-Part Polyurethane Coatings or Epoxies

- Check mix ratio on labels, Product Data Sheets and in Application Manual prior to mixing materials. Proper ratios are essential for optimum coating performance and development of physical properties. Pay particular attention to pot life instructions.
- The catalyst or clear side of the mix is always to be added to the color side. Never add the color to the catalyst, as mixing will be poor.
- Always mix the pigmented or color side thoroughly (3–5 minutes) prior to addition of the catalyst.
- Once the two parts are combined, mix for a minimum of 5 minutes. It is essential that all two-component materials be mixed thoroughly so no off-ratio materials are produced.
- Any thinning of two-part materials should come after the materials are mixed. If solvents are added prior to mixing, proper coating ratios will not be achieved. Do not thin materials more than 10%. See “Thinning and Cleaning Solvents” in the Support Information section of this Application Manual.
- If one elects to pump the two-part polyurethane through plural-component equipment (such as Graco's Hydra-Cat), be sure to mix the pigmented side thoroughly prior to pumping. Thinning in such an application must be done equally to both sides prior to spraying.



System Application Instructions

IMPORTANT: General Principles

Note: Prior to application, refer to the Product Mixing Instructions section in this Application Manual.

- Do not apply materials when substrate temperature is greater than 110°F (32°C) or below 40°F (4°C).
- Never coat wet or moist surfaces with urethane materials. If in doubt, perform a moisture test.
- Urethane products are incompatible with asphalt compounds.
- It is much easier to keep coating off an adjacent surface during application than to remove it after cure.
- Flush equipment lines thoroughly every night to prevent material from clogging hoses.
- In systems requiring the use of primers, coating materials should be applied the same day as priming.
- When placing two-component (2k) materials, never turn empty pails upside down or scrape sides to capture remaining coating. This material is not fully mixed and will result in uncured areas of coating.
- Always segregate topcoat material by batch number and avoid using different batch numbered material in continuous expanses. If you don't have enough material from the same batch number to complete the final topcoat application, box the material. NEOGARD® cannot guarantee absolute color consistency between batches.

Factors That Affect Dry Film Thickness

Many factors can affect the amount of wet coating required to yield proper dry film thickness, including: Volume of solids; thinning; surface profile; application technique and equipment; overspray; squeegee; brush and roller wet out; container residue; spills and other waste.

To ensure that specified dry film thickness is achieved, use a wet mil gauge to check thickness of wet coating applied, adjusting as needed for those factors which directly affect the dry film build.

Utilize an optical comparator to verify actual dry film thickness and adjust coverage rates accordingly.

Note: System application instructions are for horizontal surfaces. Vertical or inclined surfaces may require additional coats to build film to design thickness.

Coating Phase Termination

Ideally, terminate phases at joints. This will provide a neat break and will offer the best aesthetics when project application is completed. Be sure to use the same batch number of topcoat material for all phases of the project. Phase termination suggestions are as follows:

- **At Joint:** bring current coating on to urethane joint sealant and end on sealant. When continuing coating application, clean and solvent wipe existing coating, apply primer (as needed) and follow with coating system.
- **Mid-Slab:** Apply tape or similar material to terminate current application in a straight line. Leave base coat exposed by stopping wear/topcoat application 4"–6" from termination point. Do not leave base coat exposed for more than 5 days. When proceeding with application, clean and solvent wipe exposed base coat. Apply wear coat to existing wear coat. Overlap neat topcoat to existing finished system. If using seed and backroll application method, overlap on existing system approximately 4".

Note: If base coat will not be coated within 5 days, terminate full system at straight line. When proceeding with application, clean and solvent wipe existing system approximately 4"–6" and overlap new system over existing system.

Auto-Gard

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) silica quartz sand.
- Base Coat: 70410 (45010) urethane.
- Wear Coat: 7430 (57040) series urethane.
- Topcoat: 7430 (57040) series urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410 and 7430 series polyurethane to speed curing. See “Additives” and “Curing Charts” in Support Information section of this Application Manual.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply 70410 polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply 7430 series polyurethane at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 8 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 15 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** After removing loose aggregate from Wear Coat, thoroughly mix and apply a second Wear Coat of 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils, and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping, or vacuuming.
6. Topcoat: Thoroughly mix and apply 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils and allow to cure.
7. Do not allow traffic on coated surfaces for a period of at least 72 hours at 75°F (23°C), 50% RH.

(continued on next page)

Summary Application Table for Auto-Gard Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Wear Coat Aggregate	7430 Series 7992	N/A	150 sf/gal 15 lbs/100 sf	10 WFT/8 DFT	12 hrs
HD Wear Coat Aggregate	7430 Series 7992	N/A	100 sf/gal 10 lbs/100 sf	16 WFT/12 DFT	12 hrs
Topcoat	7430 Series	N/A	100 sf/gal	16 WFT/12 DFT	12 hrs

Seed and Backroll Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Apply Base Coat of 70410 polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils, and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Apply Wear Coat of 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils, and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping, or vacuuming.
5. Apply Topcoat of 7430 series polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils, and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of approximately 15 lbs/100 sf and backroll to encapsulate aggregate. Allow to cure.
6. Do not allow traffic on coated surfaces for a period of at least 72 hours at 75°F (23°C), 50% RH.

Summary Application Table for Auto-Gard Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
HD Wear Coat Aggregate	7430 Series 7992	N/A	100 sf/gal 10 lbs/100 sf	16 WFT/12 DFT	12 hrs
Topcoat Aggregate	7430 Series 7992	N/A	60 sf/gal 15 lbs/100 sf	26 WFT/20 DFT	12 hrs

Auto-Gard T

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Base Coat: 70410 (45010) urethane.
- Heavy Duty Wear Coat: 70420 (47HJB) integrally textured urethane.
- Topcoat: 70420 (47HJB) integrally textured urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410 polyurethane to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer)

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix 70410 base coat material and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment.

Note: Do not dip and roll 70420 wear coat or topcoat material from container.

4. Heavy Duty Wear Coat (turns, ramps, ticket spitters, etc.): In such areas, thoroughly mix 70420 wear coat material and apply at a rate of 100 sf/gal (1.0 gal/100 sf or 16 wet mils) using a 1/16” notched squeegee and 3/8”-1/2” nap roller cover to uniformly backroll prior to applying topcoat. Heavy Duty Wear Coat should be backrolled two times, one perpendicular to the other.
5. Topcoat: Thoroughly mix 70420 topcoat material and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils) using a 1/8” notched squeegee and 3/8”-1/2” nap roller cover to uniformly backroll topcoat. Topcoat should be backrolled two times, one perpendicular to the other.
6. Do not allow traffic on coated surfaces for a period of at least 24 hours at 75°F (23°C) and 50% R.H.

Summary Application Table for Auto-Gard T

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
HD Wear Coat	70420	N/A	100 sf/gal	16 WFT/12 DFT	12 hrs
Topcoat	70420	N/A	60 sf/gal	26 WFT/20 DFT	12 hrs

Auto-Gard Aliphatic

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) silica quartz sand.
- Base Coat: 70410 (45010) urethane.
- Wear Coat: 7430 (57040) series urethane.
- Topcoat: 7470 (47LJB) series aliphatic urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410, 7430 series, and 7470 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Average Dry Film Thickness

- Standard system: 40 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply 70410 series polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply 7430 series polyurethane at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 8 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 15 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming
5. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly mix and apply a second Wear Coat of 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
6. Topcoat: Thoroughly mix and apply 7470 series aliphatic polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils and allow to cure.
7. Do not allow traffic on coated surfaces for a period of at least 72 hours at 75°F (23°C), 50% RH.

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Summary Application Table for Auto-Gard Aliphatic Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Wear Coat Aggregate	7430 series 7992	N/A	150 sf/gal 15 lbs/100 sf	10 WFT/8 DFT	12 hrs
HD Wear Coat Aggregate	7430 series 7992	N/A	100 sf/gal 10 lbs/100 sf	16 WFT/12 DFT	12 hrs
Topcoat	7470 series	N/A	100 sf/gal	16 WFT/12 DFT	16 hrs

Seed and Backroll Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply 70410 polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above.
4. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly mix and apply Wear Coat of 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply 7470 series aliphatic polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils and immediately broadcast aggregate, evenly distributed, into wet coating at a rate of approximately 15 lbs/100 sf and backroll to encapsulate aggregate. Allow to cure.
6. Do not allow traffic on coated surfaces for a period of at least 72 hours at 75°F (23°C).

Summary Application Table for Auto-Gard Aliphatic Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
HD Wear Coat Aggregate	7430 series 7992	N/A	100 sf/gal 10 lbs/100 sf	16 WFT/12 DFT	12 hrs
Topcoat Aggregate	7470 7992	N/A	60 sf/gal 15 lbs/100 sf	26 WFT/20 DFT	12 hrs

Auto-Gard Aliphatic T

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Base Coat: 70410 (45010) or 7430 (57040) urethane.
- Topcoat: 7475 (47MJB) series integrally textured aliphatic urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410 and 7430 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer: Where required, thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Base Coat: Thoroughly mix 70410 or 7430 base coat material and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment.

Note: Do not dip and roll 7475 material from container.

4. Double Texture (turns, ramps, ticket spitters, etc.): For heavy traffic areas such as ticket booths, spiraled ramps, turn areas, or in other areas subjected to high traffic abrasion. In such areas, thoroughly mix 7475 series aliphatic material and apply with a 1/16” notched squeegee at a rate of 103 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils, and backroll. When dry, remove excess or loose aggregate.
5. Topcoat: Thoroughly mix 7475 series aliphatic material and apply 1/8” notched squeegee, at the rate of 62 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils. Topcoat should be back rolled two times, one perpendicular to the other.

Summary Application Table for Auto-Gard Aliphatic T

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410 or 7430	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Double Texture	7475	N/A	100 sf/gal	16 WFT/12 DFT	12 hrs
Topcoat	7475	N/A	60 sf/gal	26 WFT/20 DFT	12 hrs

Auto-Gard FC

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992-U (66EJB) 12/20 mesh silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7510/FC7961 (47PJ9/948JB) urethane.
- Topcoat (choose one):
 - Non-UV Exposed Applications: FC7510/FC7961 (47PJ9/948JB) urethane.
 - UV Exposed Applications: FC7540/FC7964 (47QJ9/949JB) series urethane.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See the Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 two-component polyurethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils. While the Wear Coat is still wet, broadcast 7992-U aggregate at the rate of 15 lbs/100 sf into the system and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly mix and apply a second Wear Coat of FC7510/FC7961 two-component polyurethane at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils.
Immediately broadcast 7992-U aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf into the system and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
6. Topcoat: Thoroughly mix and apply FC7510/FC7961 (for non-UV exposure) at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils or FC7540/FC7964 (for UV exposure) at 120 sf/gal (0.83 gal/100 sf or 13 wet mils) to yield 12 dry mils. Allow to cure.
7. Do not allow traffic on coated surfaces for a period of at least 24–36 hours at 75°F (23°C), 50% RH.

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Summary Application Table for Auto-Gard FC Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 7992-U	3:1	200 sf/gal 15 lbs/100 sf	8 WFT/8 DFT	5–6 hrs
HD Wear Coat Aggregate	FC7510/FC7961 7992-U	3:1	133 sf/gal 10 lbs/100 sf	12 WFT/12 DFT	5–6 hrs
Topcoat: Non-UV	FC7510/FC7961	3:1	133 sf/gal	12 WFT/12 DFT	5–6 hrs
UV	FC7540/FC7964	2:1	120 sf/gal	13 WFT/12 DFT	3–4 hrs

Seed and Backroll Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly and apply FC7510/FC7961 two-component polyurethane at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils and immediately broadcast 7992-U aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply FC7510/FC7961 two component polyurethane (for non-UV exposure) at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) or FC7540/FC7964 series (for UV exposure) two-component polyurethane at 70 sf/gal (1.42 gal/100 sf or 22 wet mils) to yield 20 dry mils and immediately broadcast 7992-U aggregate, evenly distributed, into wet coating at a rate of approximately 15 lbs/100 sf and backroll to encapsulate aggregate. Allow to cure.
6. Do not allow traffic on coated surfaces for a period of at least 24-36 hours at 75°F (23°C).

Summary Application Table for Auto-Gard FC Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
HD Wear Coat Aggregate	FC7510/FC7961 7992-U	3:1	133 sf/gal 10 lbs/100 sf	12 WFT/12 DFT	5–6 hrs
Topcoat: Non-UV	FC7510/FC7961	3:1	80 sf/gal	20 WFT/20 DFT	5–6 hrs
Topcoat: UV Aggregate	FC7540/FC7964 7992-U	2:1	70 sf/gal 15 lbs/100 sf	22 WFT/20 DFT	3–4 hrs

Auto-Gard FC Aliphatic

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7530/FC7963 (57069/95056) aliphatic urethane.
- Topcoat: FC7530/FC7963 (57069/95056) aliphatic urethane.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See the Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7530/FC7963 two-component aliphatic urethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils and immediately broadcast 7992-U aggregate, evenly distributed, into wet coating at the rate of 15 lbs/100 sf into the system and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Heavy Duty Areas (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly mix and apply a second Wear Coat of FC7530/FC7963 two-component aliphatic urethane at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils. Immediately broadcast 7992-U aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
6. Topcoat: Thoroughly mix and apply FC7530/FC7963 aliphatic urethane at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils. Allow to cure.
7. Do not allow traffic on coated surfaces for a period of at least 24-36 hours at 75°F (23°C), 50% RH

Summary Application Table for Auto-Gard FC Aliphatic

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	FC7530/FC7963 7992-U	85:15	200 sf/gal 15 lbs/100 sf	8 WFT/8 DFT	5–6 hrs
<i>or</i>					
HD Wear Coat Aggregate	FC7530/FC7963 7992-U	85:15	133 sf/gal 10 lbs/100 sf	12 WFT/12 DFT	5–6 hrs
Topcoat	FC7530/FC7963	85:15	133 sf/gal	12 WFT/12 DFT	5–6 hrs

Auto-Gard FC T

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Heavy Duty Wear Coat: FC7545/FC7964 (47QJ9/949JB) urethane.
- Topcoat: FC7545/FC7964 (47RJ9/ 949JB) urethane.

Dry Film Thickness

- Standard system: 40 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 52 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See the Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**

Note: Do not dip and roll FC7545/FC7964 material from container.

4. Heavy Duty Wear Coat (turns, ramps, ticket spitters, etc.): **Note: For parking stalls and non-heavy duty service, skip this step and proceed to the next item.** Thoroughly mix and apply FC7545/7964 two-component integrally textured polyurethane at 120 sf/gal (0.83 gal/100 sf or 13 wet mils) to yield 12 dry mils using a 1/16" notched squeegee and 3/8"–1/2" nap roller cover to uniformly backroll prior to applying Topcoat. Heavy Duty Wear Coat should be backrolled two times, one perpendicular to the other.
5. Topcoat: Thoroughly mix and apply FC7545/7964 two-component integrally textured polyurethane at 70 sf/gal (1.43 gal/100 sf or 23 wet mils) to yield 20 dry mils using a 1/8" notched squeegee and 3/8"–1/2" nap roller cover. Topcoat should be applied uniformly and backrolled two times, with coats perpendicular to one other.
6. Do not allow traffic on coated surfaces for a period of at least 24-36 hours at 75°F (23°C), 50% RH.

Summary Application Table for Auto-Gard FC T

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
HD Wear Coat	FC7545/FC7964	2:1	120 sf/gal	13 WFT/12 DFT	3–4 hrs
Topcoat	FC7545/FC7964	2:1	70 sf/gal	23 WFT/20 DFT	3–4 hrs

Auto-Gard E

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992-U (66EJB) silica quartz sand or #16 aluminum oxide.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: 70714/70715-09 (45069/95075) clear 100% solids epoxy.
- Topcoat (choose one):
 - Epoxy: 70714/70715-09 (45069/95075) pigmented 100% solids epoxy.
 - Urethane: FC7540/FC7964 (47QJ9/949JB) aliphatic urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Average Dry Film Thickness

- Standard system: 46 dry mils (excluding primer and aggregate).
- Heavy duty in high wear areas (turns, ramps, ticket spitters, etc.): 50 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Note: The system is designed for one wear coat application. For standard duty applications, follow the application instructions in 4A. For heavy duty applications, follow the application instructions in 4B.
 - A. Standard Duty: Thoroughly mix 70714/70715-09 clear 100% solids epoxy and apply at a rate of 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils, and immediately broadcast selected aggregate, evenly distributed, into wet epoxy at the rate of 15 lbs per 100 square feet. When dry, remove excess aggregate.
 - B. Heavy Duty: Thoroughly mix 70714/70715-09 clear 100% solids epoxy and apply at a rate of 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 16 dry mils, and immediately broadcast selected aggregate, evenly distributed, into wet coating at the rate of 15 lbs per 100 square feet. When dry, remove excess aggregate.
5. Topcoat: Thoroughly mix and apply 70714/70715-09 pigmented epoxy (for non-UV exposure) at 110 sf/gal (0.90 gal/100 sf or 14 wet mils) or FC7540/FC7964 (for UV exposure) two-component polyurethane mix at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 14 dry mils. Allow to cure.
6. Do not allow traffic on coated surfaces for a period of at least 24-36 hours at 75°F (23°C), 50% RH.

(continued on next page)

Summary Application Table for Auto-Gard E

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	70714/70715-09 Clear 7992-U	2:1	133 sf/gal 15 lbs/100 sf	12 WFT/12 DFT	8–9 hrs
<i>or</i>					
HD Wear Coat Aggregate	70714/70715-09 Clear 7992-U	2:1	100 sf/gal 15 lbs/100 sf	16 WFT/16 DFT	8–9 hrs
Topcoat: Non-UV UV	70714/70715-09 Pigmented FC7540/FC7964	2:1 2:1	110 sf/gal 100 sf/gal	14 WFT/14 DFT 16 WFT/14 DFT	8–9 hrs 3–4 hrs

Auto-Gard E Helipad

Materials (Hempel product numbers in parentheses)

- Primers: 70714/70715-09 (45069/95075) or 7797/7798 (254J9/946JB).
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: #16 aluminum oxide.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: 70714/70715 (45069/95073) clear 100% solids epoxy.
- Seal Coat: 70714/70715 (45069/95073) pigmented 100% solids epoxy.
- Topcoat (choose one):
 - 70817/70818 (57025/95052) High Solids Chemical Resistant Urethane, pigmented.
 - Acrylithane HS2, pigmented (57010 or 57011).
 - 70805/7952 (57029/95051) Chemical Resistant Urethane.

Average Dry Film Thickness

- Standard system: 63 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix FC7500/FC7960 urethane coating and apply at a rate of 64 sf/gal (1.57 gal/100 sf or 25 wet mils) to yield 25 dry mils. Extend base coat over cracks and control joints which have received detail treatment.

Note: Do not leave base coat exposed for more than 5 days.

Note: If application is on grade, omit base coat and apply moisture mitigation system. Contact NEOGARD® for details.

4. Wear Coat: Thoroughly mix 70714/70715 clear 100% solids epoxy and apply at a rate of 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils, and immediately broadcast #16 aluminum aggregate, evenly distributed, into wet epoxy at the rate of approximately 20 lbs per 100 square feet and allow to cure. Remove loose aggregate by blowing, sweeping, or vacuuming.
5. Seal Coat: Thoroughly mix 70714/70715 pigmented 100% solids epoxy and apply at a rate of 130 sf/gal (0.76 gal/100 sf or 12 wet mils) to yield 12 dry mils.
6. Topcoat: **Depending on the application, select appropriate topcoat.** Thoroughly mix and apply 70817/70818 CRU, Acrylithane HS2 or 70805/7952 CRU at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils (70817/70818) or 6 dry mils (Acrylithane HS2 or 70805/7952).

Summary Application Table for Auto-Gard E Helipad

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	70714/70715-09	2:1	300 sf/gal	N/A	8–9 hrs
	7797/7798	2:1	300 sf/gal		5–6 hrs
Base Coat	FC7500/FC7960	9:1	64 sf/gal	25 WFT/25 DFT	4–5 hrs
Wear Coat Aggregate	70714/70715 Clear #16 aluminum oxide	2:1	80 sf/gal 20 lbs/100 sf	20 WFT/20 DFT	8–9 hrs
Seal Coat	70714/70715 Pigmented	2:1	130 sf/gal	12 WFT/12 DFT	8–9 hrs
Topcoat	70817/70818 CRU	1:1	150 sf/gal	10 WFT/10 DFT	N/A
	Acrylithane HS2	3:1	150 sf/gal	10 WFT/6 DFT	
	70805/7952 CRU	2:1	150 sf/gal	10 WFT/6 DFT	

Auto-Gard F

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: Uniformly graded #3 flint.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: 70714/70715-09 (45069/95075) 100% solids epoxy.
- Topcoat:
 - Non-UV Exposed Applications: 70714/70715-09 (45069/95075) 100% solids pigmented epoxy.
 - UV Exposed Applications: FC7540/FC7964 (47QJ9/949JB) series urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Average Dry Film Thickness

- 56 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply 70714/70715-09 epoxy at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils and immediately broadcast 84059 #3 flint into wet coating to point of rejection (30 lbs/100 sf), and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply 70714/70715-09 pigmented epoxy at 66 sf/gal (1.5 gal/100 sf or 24 wet mils) or FC7540/FC7964 two-component polyurethane (for UV exposure) at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 24 dry mils and allow to cure.
6. Do not allow traffic on coated surfaces for a period of at least 24-36 hours at 75°F (23°C), 50% RH.

Summary Application Table for Auto-Gard F System

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	App. Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	70714/70715-09 Epoxy #3 Flint	2:1	133 sf/gal 30 lbs/100 sf	12 WFT/12 DFT	8–9 hrs
Topcoat: Non-UV UV	70714/70715-09 Pigmented Epoxy FC7540/FC7964	2:1 2:1	66 sf/gal 60 sf/gal	24 WFT/24 DFT 26 WFT/24 DFT	8–9 hrs 3–4 hrs

Peda-Gard

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh silica quartz sand.
- Base Coat: 70410 (45010) urethane.
- Wear Coat: 7430 (57040) series urethane.
- Topcoat: 7430 (57040) series urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410 and 7430 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Average Dry Film Thickness

- 32 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply 70410 polyurethane at 66 sf/gal (1.5 gal/100 sf or 24 wet mils) to yield 18 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply 7430 series polyurethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 6 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 square feet and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply 7430 series polyurethane at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 8 dry mils and allow to cure.
6. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	66 sf/gal	24 WFT/18 DFT	14 hrs
Wear Coat Aggregate	7430 series 7992	N/A	200 sf/gal 10 lbs/100 sf	8 WFT/6 DFT	12 hrs
Topcoat	7430 series	N/A	150 sf/gal	10 WFT/8 DFT	12 hrs

Seed and Backroll Method

1. Surface preparation: See the Surface Preparation section of this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply 70410 polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above.

4. Topcoat: Thoroughly mix and apply 7430 series polyurethane at 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of approximately 10 lbs/100 sf and backroll to encapsulate aggregate.
5. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Topcoat Aggregate	7430 series 7992	N/A	100 sf/gal <i>10 lbs/100 sf</i>	16 WFT/12 DFT	12 hrs

Peda-Gard Aliphatic

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh silica quartz sand.
- Base Coat: 70410 (45010) urethane.
- Wear Coat: 7430 (57040) series urethane.
- Topcoat: 7470 (47LJB) series aliphatic urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410, 7430 series, and 7470 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Average Dry Film Thickness

- 32 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See the Surface Preparation section of this Application Manual.
2. Primer: Where required, thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Base Coat: Thoroughly mix 70410 base coat material and apply at a rate of 66 sf/gal (1.5 gal/100 sf or 24 wet mils), to yield 18 dry mils. Extend base coat over cracks and control joints which have received detail treatment.
4. Wear Coat: Thoroughly mix 7430 series wear coat material and apply at a rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 6 dry mils, and immediately broadcast aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf. When dry, remove excess aggregate.
5. Topcoat: Thoroughly mix 7470 series topcoat material and apply at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 8 dry mils. Note: System coating thickness is 32 dry mils exclusive of primer and aggregate.

Summary Application Table for Peda-Gard Aliphatic Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	66 sf/gal	24 WFT/18 DFT	14 hrs
Wear Coat Aggregate	7430 Series 7992	N/A	200 sf/gal 10 lbs/100 sf	8 WFT/6 DFT	12 hrs
Topcoat	7470 Series	N/A	150 sf/gal	10 WFT/8 DFT	16 hrs

Seed and Backroll Method

1. Surface preparation: See the Surface Preparation section of this Application Manual.
2. Primer: Where required, thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.

3. Base Coat: Thoroughly mix 70410 base coat material and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment.
4. Topcoat: Thoroughly mix 7470 series topcoat material and apply at a rate of 100 sf/gal (1.0 gal/100 sf or 16 wet mils) to yield 12 dry mils. Immediately broadcast aggregate at a rate of approximately 10 lbs/100 sf and backroll to encapsulate aggregate.

Summary Application Table for Peda-Gard Aliphatic Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Topcoat Aggregate	7470 Series 7992	N/A	100 sf/gal 10 lbs/100 sf	16 WFT/12 DFT	16 hrs

Peda-Gard Aliphatic T

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Base Coat: 70410 (45010) or 7430 series (57040) urethane.
- Topcoat: 7478 series (47BJB) aliphatic urethane.

Note: If system is required to be low odor, use 7780/7781 primer.

Note: Accelerators may be blended with 70410 and 7430 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Average Dry Film Thickness

- 32 dry mils (excluding primer).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer: Where required, thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Base Coat: Thoroughly mix base coat material (70410 or 7430) and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment.

Note: Do not dip and roll 7478 material from container.

4. Topcoat: After base coat is dry, thoroughly mix 7478 series topcoat material and apply with a 1/16” notched squeegee at a rate of 104 sf/gal (.96 gal/100 sf or 16 wet mils) to yield 12 dry mils. Topcoat should be backrolled two times, one perpendicular to the other.

Note: System coating thickness is 32 dry mils exclusive of primer and aggregate.

Summary Application Table for Peda-Gard Aliphatic Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410 or 7430	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Topcoat	7478 series	N/A	104 sf/gal	16 WFT/12 DFT	NA

Peda-Gard FC

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7510/FC7961 (47PJ9/948JB) urethane.
- Topcoat (choose one):
 - Non-UV Exposed Applications: FC7510/FC7961 (47PJ9/948JB) urethane.
 - UV Exposed Applications: FC7540/FC7964 (47QJ9/949JB) series urethane.

Average Dry Film Thickness

- 35 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 88 sf/gal (1.13 gal/100 sf or 18 wet mils) to yield 18 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 two-component polyurethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply FC7510/FC7961 (for non-UV exposure) at 175 sf/gal (0.57 gal/100 sf or 9 wet mils) or FC7540/FC7964 (for UV exposure) two-component polyurethane at 160 sf/gal (0.62 gal/100 sf or 10 wet mils) to yield 9 dry mils and allow to cure.
6. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard FC Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1	300 sf/gal	N/A	1.5–2 hrs
		2:1	300–500 sf/gal		5–6 hrs
Base Coat	FC7500/FC7960	9:1	88 sf/gal	18 WFT/18 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 7992	3:1	200 sf/gal 10 lbs/100 sf	8 WFT/8 DFT	5–6 hrs
Topcoat: Non UV UV	FC7510/FC7961 FC7540/FC7964	3:1	175 sf/gal	9 WFT/9 DFT	5–6 hrs
		2:1	160 sf/gal	10 WFT/9 DFT	3–4 hrs

Seed and Backroll Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane mix at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied

within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**

4. Topcoat: Thoroughly mix and apply FC7510/FC7961 (for non-UV exposure) at 106 sf/gal (0.93 gal/100 sf or 15 wet mils) or FC7540/FC7964 series (for UV exposure) polyurethane at 95 sf/gal (1.05 gal/100 sf or 16 wet mils) to yield 15 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of approximately 10 lbs/100 sf and backroll to encapsulate aggregate. Allow to cure.
5. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard FC Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Topcoat: Non-UV	FC7510/FC7961	3:1	106 sf/gal	15 WFT/15 DFT	5–6 hrs
Topcoat: UV	FC7540/FC7964	2:1	95 sf/gal	16 WFT/15 DFT	3–4 hrs
Aggregate	7992		10 lbs/100 sq ft		

Peda-Gard FC T

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Topcoat: FC7548/FC7964 (47TJ9/ 949JB) urethane.

Average Dry Film Thickness

- 32 dry mils (excluding primer).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer: Where required, thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Base Coat: Thoroughly mix FC7500/FC7960 base coat material and apply at a rate of 80 sf/gal (1.25 gal/100 sf or 20 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment.

Note: Do not dip and roll FC7548/FC7964 material from container.

4. Topcoat: Thoroughly mix FC7548/FC7964 series topcoat material and apply with a 1/16" notched squeegee at a rate of 120 sf/gal (0.83 gal/100 sf or 13 wet mils) to yield 12 dry mils. Topcoat should be backrolled two times, one perpendicular to the other.

Summary Application Table for Peda-Gard FC T

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Topcoat	FC7548/FC7964	2:1	120 sf/gal	13 WFT/12 DFT	NA

Peda-Gard FC Aliphatic

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7510/FC7961 (47PJ9/948JB) urethane.
- Topcoat: FC7530/FC7963 (57069/95056) urethane.

Average Dry Film Thickness

- 35 dry mils (excluding primer and aggregate).

Application Instructions

Seed and Lock Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 88 sf/gal (1.13 gal/100 sf or 18 wet mils) to yield 18 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 two-component polyurethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Topcoat: Thoroughly mix and apply FC7530/FC7963 aliphatic urethane at 175 sf/gal (0.57 gal/100 sf or 9 wet mils) to yield 9 dry mils and allow to cure.
6. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard FC Aliphatic Seed and Lock Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	88 sf/gal	18 WFT/18 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 7992	3:1	200 sf/gal 10 lbs/100 sf	8 WFT/8 DFT	5–6 hrs
Topcoat	FC7530/FC7963	85:15	175 sf/gal	9 WFT/9 DFT	5–6 hrs

Seed and Backroll Method

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Topcoat: Thoroughly mix and apply FC7530/FC7963 at 106 sf/gal (0.94 gal/100 sf or 15 wet mils) to yield 15 dry mils and immediately broadcast 7992 aggregate, evenly distributed, at a rate of approximately 10 lbs/100 sf and backroll to encapsulate aggregate. Allow to cure.

5. Do not allow pedestrian traffic on coated surfaces for a period of at least 24 hours at 75°F , 50% RH.

Summary Application Table for Peda-Gard FC Aliphatic Seed and Backroll Method

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Topcoat Aggregate	FC7530/FC7963 7992	85:15	106 sf/gal 10 lbs/100 sq ft	15 WFT/15 DFT	5–6 hrs

Decorative Peda-Gard

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: Contact NEOGARD® for available colors.
 - Series 1: Estes Permacolor HP Quartz Granules (UV-stable), Medium (20/70 mesh).
 - Series 2: Trowel-Rite® (20/40 mesh) inorganic UV-stable quartz aggregate.
- Base Coat: 70410 (45010) or 7430 Series (57040) polyurethane.
- Wear Coat: 7430 Series (57040) polyurethane.
- Topcoat (five material options):
 - 70805/7952 (57029/95051) clear Chemical Resistant Urethane (CRU);
 - 70817/70818 (57079/95059) clear CRU;
 - 70869/70819 (57039/95055) clear Polyaspartic;
 - Acrylithane HS2 (57019/95041);
 - Acrylithane HS4 (645J9/95041).

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410 and 7430 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Note: Depending on project conditions, faster turnaround may be achieved by utilizing 70869/70819 Polyaspartic as the topcoat. If return to service time is critical, contact NEOGARD® to discuss details.

Average Dry Film Thickness

- 37–40 dry mils (excluding primer and aggregate), dependent on topcoat selected.

Application Instructions

Series 1:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix 70410 or 7430 series and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix 7430 series wear coat material and apply at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils), to yield 8 dry mils, and immediately broadcast Estes Permacolor HP Quartz Granules (UV stable), Broadcast Medium, evenly distributed, into wet coating at a rate of approximately 40-50 lbs/100 sf or until refusal. When dry, remove excess aggregate.
5. First Topcoat: Thoroughly mix Topcoat material and apply at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils (70817/70818 CRU, 70869/70819 Polyaspartic) or 6 dry mils (70817/70818 CRU, Acrylithane HS2 or Acrylithane HS4).
6. Second Topcoat: Thoroughly mix Topcoat material and apply at a rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils (70817/70818 CRU, 70869/70819 Polyaspartic) or 5 dry mils (70817/70818 CRU, Acrylithane HS2 or Acrylithane HS4).

Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.

7. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Decorative Peda-Gard Series 1

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410 or 7430 series	N/A N/A	60 sf/gal 60 sf/gal	26 WFT/20 DFT 26 WFT/20 DFT	12 hrs
Wear Coat Aggregate	7430 series <i>Estes Perma-Color HP Quartz, Broadcast Medium Grade</i>	N/A	150 sf/gal <i>50 lbs/100 sf</i>	10 WFT/8 DFT	12 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	150 sf/gal 150 sf/gal 150 sf/gal 133 sf/gal 133 sf/gal	10 WFT/10 DFT 10 WFT/10 DFT 10 WFT/6 DFT 10 WFT/6 DFT 10 WFT/6 DFT	8–9 hrs 6–8 hrs 8–9 hrs 6 hrs 6 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal	8 WFT/8 DFT 8 WFT/8 DFT 8 WFT/5 DFT 8 WFT/5 DFT 8 WFT/5 DFT	N/A

Series 2:

1. Surface preparation: See Surface Preparation section in this Application Manual.
 2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
 3. Base Coat: Thoroughly mix 70410 or 7430 series and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment. **Note: Do not leave base coat exposed for more than 5 days.**
 4. Wear Coat: Thoroughly mix 7430 series wear coat material and apply at a rate of 120 sf/gal (0.83 gal/100 sf or 13 wet mils), to yield 10 dry mils, and immediately broadcast Trowel-Rite® inorganic UV stable quartz aggregate, evenly distributed, into wet coating at a rate of approximately 50 lbs/100 sf or until refusal. When dry, remove excess granules.
 5. First Topcoat: Thoroughly mix Topcoat material. Apply 70817/70818 CRU or 70869/70819 Polyaspartic at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils. Apply 70805/7952 CRU, Acrylithane HS2 or Acrylithane HS4 at a rate of 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 7 dry mils.
 6. Second Topcoat: Thoroughly mix Topcoat material and apply at a rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils (70817/70818 CRU, 70869/70819 Polyaspartic) or 5 dry mils (70805/7952 CRU, Acrylithane HS2 or Acrylithane HS4).
- Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.**
7. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

(continued on next page)

Summary Application Table for Decorative Peda-Gard Series 2

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410 or 7430 series	N/A N/A	60 sf/gal 60 sf/gal	26 WFT/20 DFT 26 WFT/20 DFT	12 hrs
Wear Coat Aggregate	7430 series <i>Estes Perma-Color HP Quartz Trowel-Rite grade</i>	N/A	120 sf/gal <i>50 lbs/100 sf</i>	13 WFT/10 DFT	12 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	150 sf/gal 150 sf/gal 150 sf/gal 133 sf/gal 133 sf/gal	10 WFT/10 DFT 10 WFT/10 DFT 10 WFT/6 DFT 10 WFT/6 DFT 10 WFT/6 DFT	8–9 hrs 6–8 hrs 8–9 hrs 6 hrs 6 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal	8 WFT/8 DFT 8 WFT/8 DFT 8 WFT/5 DFT 8 WFT/5 DFT 8 WFT/5 DFT	N/A

Decorative Peda-Gard FC

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: Contact NEOGARD® for available colors.
 - Series 1: Estes Permacolor HP Quartz Granules (UV stable), Medium (20/70 mesh).
 - Series 2: Trowel-Rite® (20/40 mesh) inorganic UV stable quartz aggregate.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7510/FC7961 (47PJ9/948JB) urethane.
- Topcoat (choose one):
 - 70817/70818 Chemical Resistant Urethane (CRU) (57025/95052).
 - 70869/70819 Polyaspartic (57039/95052).

Note: Depending on project conditions, faster turnaround may be achieved by utilizing 70869/70819 Polyaspartic as the topcoat. If return to service time is critical, contact NEOGARD® to discuss details.

Average Dry Film Thickness

- 37–40 dry mils (excluding primer and aggregate), dependent on topcoat selected.

Application Instructions

Series 1:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 at 160 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils and immediately broadcast aggregate, evenly distributed, into wet coating until refusal (approximately 50 lbs/100 sf) and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. First Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils. Allow to cure tack-free.
6. Second Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils. Allow to cure tack-free.

Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.

7. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

(continued on next page)

Summary Application Table for Decorative Peda-Gard FC Series 1

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 or FC7540/FC7964 <i>Broadcast Medium Quartz</i>	3:1 2:1	160 sf/gal 160 sf/gal <i>50 lbs/100 sf</i>	10 WFT/10 DFT	5–6 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	150 sf/gal 150 sf/gal	10 WFT/10 DFT 10 WFT/10 DFT	8–9 hrs 6–8 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	200 sf/gal 200 sf/gal	8 WFT/8 DFT 8 WFT/8 DFT	N/A

Series 2:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above.
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 at 133 sf/gal (0.66 gal/100 sf or 12 wet mils) to yield 12 dry mils and immediately broadcast aggregate, evenly distributed, into wet coating until refusal (approximately 50 lbs/100 sf) and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. First Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils. Allow to cure tack-free.
6. Second Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils. Allow to cure tack-free.

Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.

7. System coating thickness is 40 dry mils exclusive of primer and aggregate.
8. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Decorative Peda-Gard FC Series 2

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 or FC7540/FC7964 <i>Trowel-Rite®</i>	3:1 2:1	133 sf/gal 133 sf/gal <i>50 lbs/100 sf</i>	12 WFT/12 DFT	5–6 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	133 sf/gal 133 sf/gal	12 WFT/12 DFT 12 WFT/12 DFT	8–9 hrs 6–8 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	200 sf/gal 200 sf/gal	8 DFT/8 WFT 8 DFT/8 WFT	N/A

Decorative Peda-Gard Flake

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: UV stable flakes.
- Base Coat: 70410 (45010) or 7430 Series (57040) polyurethane coating.
- Wear Coat: 7470 Series (47LJB) polyurethane coating.
- Topcoat (five material options):
 - 70805/7952 (57029/95051) clear Chemical Resistant Urethane (CRU);
 - 70817/70818 (57079/95059) clear CRU;
 - 70869/70819 (57039/95055) clear Polyaspartic;
 - Acrylithane HS2 (57019/95041);
 - Acrylithane HS4 (645J9/95041).

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 70410, 7430 series, and 7470 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Note: Depending on project conditions, faster turnaround may be achieved by utilizing 70869/70819 Polyaspartic as the topcoat. If return to service time is critical, contact NEOGARD® to discuss details.

Average Dry Film Thickness

- 40–42 dry mils (excluding primer and aggregate) dependent on topcoat selected.

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow primer to cure.
3. Base Coat: Thoroughly mix 70410 or 7430 series and apply at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils), to yield 20 dry mils. Extend base coat over cracks and control joints which have received detail treatment. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix 7470 series wear coat material and apply at a rate of 120 sf/gal (0.83 gal/100 sf or 13 wet mils), to yield 10 dry mils, and immediately broadcast flakes into wet coating until refusal (approximately 25 lbs/100 sf). When dry, remove excess flakes and lightly abrade flake surface with palm sander utilizing 80 grit sand paper or use a Bully Tool® Pro Grade Floor Scraper or similar tool. Remove debris by blowing, sweeping, or vacuuming.
5. First Topcoat: Thoroughly mix Topcoat material. Apply at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils (70817/70818 CRU, 70869/70819 Polyaspartic) or 6 dry mils (70805/7952 CRU, Acrylithane HS2 or Acrylithane HS4).
6. Second Topcoat: Thoroughly mix Topcoat material. Apply at a rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils (70817/70818 CRU, 70869/70819 Polyaspartic) or 5 dry mils (70805/7952 CRU, Acrylithane HS2 or Acrylithane HS4).

Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.

7. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Decorative Peda-Gard Flake

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7760/7761	1:1	300 sf/gal	N/A	1.5–2 hrs
Base Coat	70410 or 7430 series	N/A N/A	60 sf/gal 60 sf/gal	26 WFT/20 DFT 26 WFT/20 DFT	12 hrs
Wear Coat	7470 Series <i>UV-Stable Flakes</i>	N/A	120 sf/gal <i>25 lbs/100 sf</i>	13 WFT/10 DFT	16 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	150 sf/gal 150 sf/gal 150 sf/gal 133 sf/gal 133 sf/gal	10 WFT/10 DFT 10 WFT/10 DFT 10 WFT/6 DFT 10 WFT/6 DFT 10 WFT/6 DFT	8–9 hrs 6 hrs 8–9 hrs 6 hrs 6 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic 70805/7952 CRU Acrylithane HS2 Acrylithane HS4	1:1 Kit 2:1 3:1 4:1	200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal 200 sf/gal	8 WFT/8 DFT 8 WFT/8 DFT 8 WFT/5 DFT 8 WFT/5 DFT 8 WFT/5 DFT	N/A

Decorative Peda-Gard FC Flake

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: UV stable flakes.
- Base Coat: 70410 (45010) or 7430 Series (57040) polyurethane.
- Wear Coat: 7470 Series (47LJB) polyurethane.
- Topcoat (choose one): 70805/7952 Chemical Resistant Urethane (CRU) (57029/95051) or 70817/70818 CRU (57025/95052).

Note: Accelerators may be blended with 70410, 7430, and 7470 series polyurethanes to speed curing. See “Additives” and “Curing Charts” in the Support Information section of this Application Manual.

Average Dry Film Thickness

- 40–42 dry mils (excluding primer and aggregate) dependent on topcoat selected.

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7540/FC7964 at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 10 dry mils and immediately broadcast flakes into wet coating until refusal at a rate of approximately 25 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. First Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 10 dry mils. Allow to cure tack-free.
6. Second Topcoat: Thoroughly mix and apply 70817/70818 CRU or 70869/70819 Polyaspartic at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 8 dry mils. Allow to cure tack-free.

Note: Apply topcoats in a cross hatch pattern for best coverage and uniformity of appearance. Depending on the desired texture/finish of the system, additional topcoats may be necessary. The Field Sample will provide confirmation of coverage rates for topcoat.

7. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Decorative Peda-Gard FC Flake

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Wear Coat	FC7540/FC7964 <i>UV-stable flakes</i>	3:1	120 sf/gal <i>25 lbs/100 sf</i>	13 WFT/12 DFT	3–4 hrs
First Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	150 sf/gal 150 sf/gal	10 WFT/10 DFT 10 WFT/10 DFT	8–9 hrs 6–8 hrs
Second Topcoat	70817/70818 CRU 70869/70819 Polyaspartic	1:1 Kit	200 sf/gal 200 sf/gal	8 WFT/8 DFT 8 WFT/8 DFT	N/A

TrafficTuff

Materials (Hempel product numbers in parentheses)

- Epoxy: 70714/70715-09 (45069/95075) clear.
- Aggregate: 7992 (16/30 mesh) silica quartz sand.
- Epoxy Seal Coat: 70714-XX/70715-09 (45069/95075) pigmented.
- Crack Filler: 70718/70719 (25009/95048) flexible epoxy or other flexible epoxy approved by NEOGARD®
- Sealant: 70991 (47XJB) or other polyurethane sealant approved by NEOGARD®.
- Fillers: PI934 (D261) fumed silica and 7992 (66010) blended aggregates.
- Exterior Optional Coat (choose one):
 - 70805/7952 (57029/95051) pigmented chemical resistant urethane (CRU).
 - Acrylithane HS2 (57019/ 95041).

Average Dry Film Thickness

- 28 dry mils (excluding aggregate)
- 33 dry mils with Exterior Optional Coat (excluding aggregate)

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Base Coat: Mix 70714/70715-09 clear at a ratio of 2:1 by volume. Apply at a rate of 100 sf/gal (16 mils wft) to prepared substrate with a notched squeegee, notched trowel or short nap (3/8") phenolic core roller. Back roll with a short-napped phenolic core roller.
3. Aggregate: Broadcast 7992 blended aggregate into wet epoxy base coat until refusal at a rate of approximately 15 lbs/100sf. Maintain a one to two foot wet edge without any aggregate to allow for a smooth transition to the next pass of neat epoxy. Allow to cure 8–9 hours @ 75°F (23°C). Remove excess aggregate.
4. Seal Coat: Mix 70714-XX/70715-09 pigmented at a ratio of 2:1 for 3 minutes. Apply seal coat of 70714-XX/70715-09 pigmented at a rate of 130 sf/gal (12 mils wft) and allow to cure 8–9 hours @ 75°F (23°C) or until tack free. For color options, refer to the NEOGARD® Color Chart.
5. Exterior Optional Coat: Apply coat of 70805/7952 pigmented CRU or Acrylithane HS2/99951 at a rate of 200sf/gal (8 mils wft) and allow to cure: 24 hours @ 75°F (23°C) before allowing foot traffic, or 48 hours @ 75°F (23°C) for heavy traffic.

Summary Application Table for TrafficTuff

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Base Coat Aggregate	70714/70715-09 7992	2:1	100 sf/gal 15 lbs/100sf	16 WFT/16 DFT	8–9 hrs
Seal Coat	70714-XX/70715-09	2:1	130 sf/gal	12 DFT/12 WFT	8–9 hrs
Exterior Optional Coat	70805/7952 CRU Acrylithane HS2	2:1 3:1	200 sf/gal 200 sf/gal	8 WFT/5 DFT 8 WFT/5 DFT	N/A

Epoxy Broadcast Overlay

Materials (Hempel product numbers in parentheses)

- Cleaner: 8500 BioDegradable Cleaner Concentrate (089JB).
- Primer: Concrete and metal primers by NEOGARD®.
- Sealant: 70991 urethane sealant (47XJB).
- Fumed Silica, Cab-O-Sil: P1934 (D291).
- Aggregates:
 - 7992-U 12/20 Mesh Aggregate (66EJB).
 - Grade 65-8 Flint, 4-30 mesh.
 - Black Beauty, Medium.
 - #16 Aluminum Oxide.
- Flexible Joint Filler: 70718-02/70719 series epoxy (25009/95048).
- Epoxy Wear Coat/Topcoat: 70714/70715-09 series (45069/95075).
- Urethane Topcoat: FC7540/FC7964 (47QJ9/ 949JB).

Average Dry Film Thickness

- Series 1: 60 dry mils (excluding primer and aggregate)
- Series 2: 50 dry mils (excluding primer and aggregate)
- Series 3: 36 dry mils (excluding primer and aggregate)

Application Instructions

Series 1—Extreme Service:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer: Thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, wear coat must be applied. If wear coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Wear Coat: Thoroughly mix 70714/70715-09 epoxy wear coat material and apply at a rate of 26 sf/gal (3.75 gal/100 sf, 60 wet mils) to yield 60 dry mils, and immediately broadcast 65-8 Flint aggregate to rejection, into wet coating at an approximate rate of 90 lbs/100 sf. When dry, remove excess aggregate.

Summary Application Table for Epoxy Broadcast Overlay Series 1

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	70714/70715-09 or 70714/70715	2:1 2:1	300 sf/gal	N/A	8–9 hrs
Wear Coat Aggregate	70714/70715-09 65-8 Flint	2:1	26 sf/gal 90 lbs/100sf	60/60	N/A

Series 2—Heavy Duty Service:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer (Optional): Thoroughly mix primer and apply at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces. Within 24 hours of application of primer, wear coat must be applied. If wear coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime.
3. Wear Coat: Thoroughly mix 70714/70715-09 epoxy wear coat material and apply at a rate of 32 sf/gal (3.125 gal/100 sf, 50 wet mils) to yield 50 dry mils, and immediately broadcast aggregate to rejection, into wet coating at an approximate rate of 60 lbs/100 sf. When dry, remove excess aggregate. **For a double broadcast system, repeat this step.**

(continued on next page)

Summary Application Table for Epoxy Broadcast Overlay Series 2

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	70714/70715-09 or 70714/70715	2:1 2:1	300 sf/gal	N/A	8–9 hrs
Wear Coat Aggregate	70714/70715-09 7992-U or Black Beauty or #16 Aluminum Oxide	2:1	32 sf/gal 60 lbs/100 sf	50 WFT/50 DFT	N/A

Series 3—Moderate to Heavy Duty Service:

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Base Coat: Thoroughly mix 70714/70715-09 epoxy base coat material and apply at a rate of 80 sf/gal (1.25 gal/100 sf, 20 wet mils) to yield 20 dry mils, and immediately broadcast aggregate to rejection, into wet coating at an approximate rate of 25-30 lbs/100 sf. When dry, remove excess aggregate.
3. Topcoat:
 - A. Clear or Pigmented 70714/70715-09 Epoxy: Apply at a rate of 100 sf/gal (1.0 gal/100 sf, 16 wet mils) to yield 16 dry mils.
 - B. Urethane: Apply FC7540/FC7964 at a rate of approximately 90 sf/gal (1.1 gal/100 sf, 17 wet mils) to yield 16 dry mils.

Summary Application Table for Epoxy Broadcast Overlay Series 3

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Base	70714/70715-09	2:1	80 sf/gal	20 WFT/20 DFT	8–9 hrs
Topcoat	70714/70715-09 or FC7540/FC7964	2:1 2:1	100 sf/gal 90 sf/gal	16 WFT/16 DFT 17 WFT/16 DFT	N/A

Peda-Gard M

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane coating.
- Topcoat (choose one):
 - FC7510/FC7961 (47PJ9/948JB) polyurethane.
 - 70714/70715-09 (45069/ 95075) 100% solids pigmented epoxy.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Topcoat shown is for non-UV exposed applications only. Contact NEOGARD® Technical Services for applications that experience UV exposure.

Average Dry Film Thickness

- 32 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 20 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Topcoat: Thoroughly mix and apply FC7510/FC7961 two-component polyurethane or 70714/70715-09 pigmented epoxy at 133 sf/gal (0.75 gal/100 sf or 12 wet mils) to yield 12 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf and backroll.
5. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.

Summary Application Table for Peda-Gard M

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	App. Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1	300 sf/gal	N/A	1.5–2 hrs
		2:1	300–500 sf/gal		5–6 hrs
Base Coat	FC7500/FC7960	9:1	80 sf/gal	20 WFT/20 DFT	3–4 hrs
Topcoat Aggregate	FC7510/FC7961 or 70714/70715-09 pigmented epoxy 7992	3:1	133 sf/gal	12 WFT/12 DFT	5–6 hrs
		2:1	133 sf/gal 10 lbs/100 sq ft	12 WFT/12 DFT	8–9 hrs

Peda-Gard TS

Materials (Hempel product numbers in parentheses)

- Primers: 7760/7761 (25109/95054), 7780/7781 (280J9/98060), or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) silica quartz sand.
- Base Coat: 7430 series (57040) urethane.
- Wear Coat: 7430 series (57040) urethane.

Note: If system is required to be low odor, use 7780/7781 or 7797/7798 primer.

Note: Accelerators may be blended with 7430 series polyurethane to enhance curing. See “Additives” and “Curing Charts” in Support Information section of this Application Manual.

Average Dry Film Thickness

- 36 dry mils (excluding primer and aggregate)

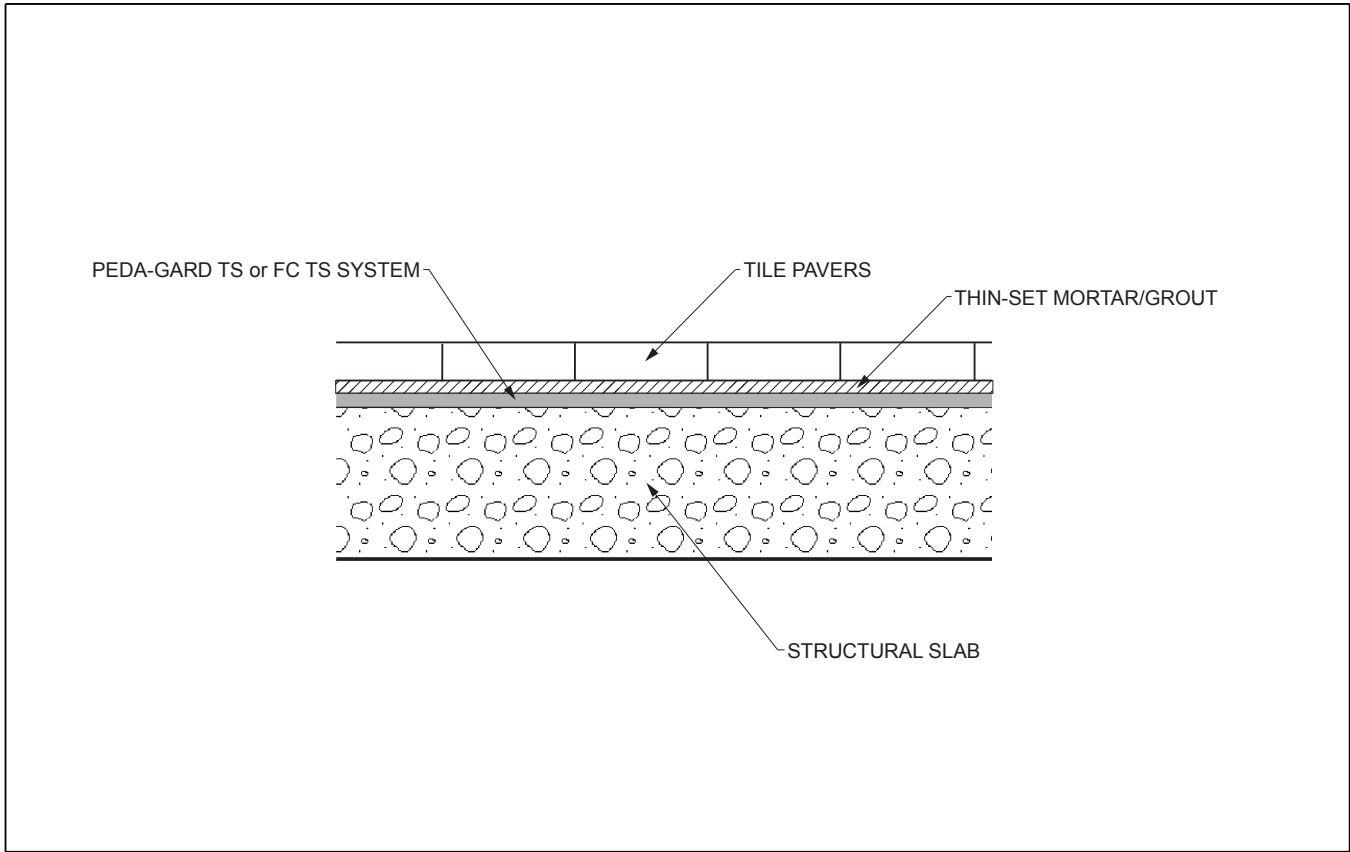
Application Instructions

1. Surface preparation: See Surface Preparation section in this application manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. First Base Coat: Thoroughly mix and apply 7430 series polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 15 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above.
4. Second Base Coat: Thoroughly mix and apply 7430 series polyurethane at 80 sf/gal (1.25 gal/100 sf or 20 wet mils) to yield 15 dry mils and allow to cure. **Note: Do not leave second base coat exposed for more than 5 days.**
5. Wear Coat: Thoroughly mix and apply 7430 series polyurethane at 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 6 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at a rate of 10 lbs/100 sf or until solidly textured and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
6. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.



Summary Application Table for Peda-Gard TS

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	7430 series	N/A	80 sf/gal	20 WFT/15 DFT	12 hrs
2nd Base Coat	7430 series	N/A	80 sf/gal	20 WFT/15 DFT	12 hrs
Wear Coat Aggregate	7430 series 7992	N/A	200 sf/gal 10 lbs/100 sq ft	8 WFT/6 DFT	12 hrs

Peda-Gard TS Detail Drawing



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

 NEOGARD <small>CONSTRUCTION COATINGS</small>	2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com		 JONES-BLAIR <small>INDUSTRIAL COATINGS</small>
	Project: Thin-Set Tile		
Drawn by: D. Bigley K. Kirby	Scale: NTS	Date: 07/18/07 08/04/15	Drawing/Index No. WP-TS

Peda-Gard FC TS

Materials (Hempel product numbers in parentheses)

- Primers: 7780/7781 (280J9/98060) or 7797/7798 (254J9/946JB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Sealant: 70991 (47XJB) urethane sealant.
- Aggregate: 7992 (66010) 16/30 mesh or 7992-U (66EJB) 12/20 mesh silica quartz sand.
- Base Coat: FC7500/FC7960 (45067/95077) urethane.
- Wear Coat: FC7510/FC7961 (47PJ9/948JB) urethane.

Average Dry Film Thickness

- 36 dry mils (excluding primer and aggregate).

Factors That Affect Dry Film Thickness

Many factors can affect the amount of wet coating required to yield proper dry film thickness, including: Volume of solids; thinning; surface profile; application technique and equipment; overspray; squeegee; brush and roller wet out; container residue; spills and other waste.

To ensure that specified dry film thickness is achieved, use a wet mil gauge to check thickness of wet coating applied, adjusting as needed for those factors which directly affect the dry film build.

Utilize an optical comparator to verify actual dry film thickness and adjust coverage rates accordingly.

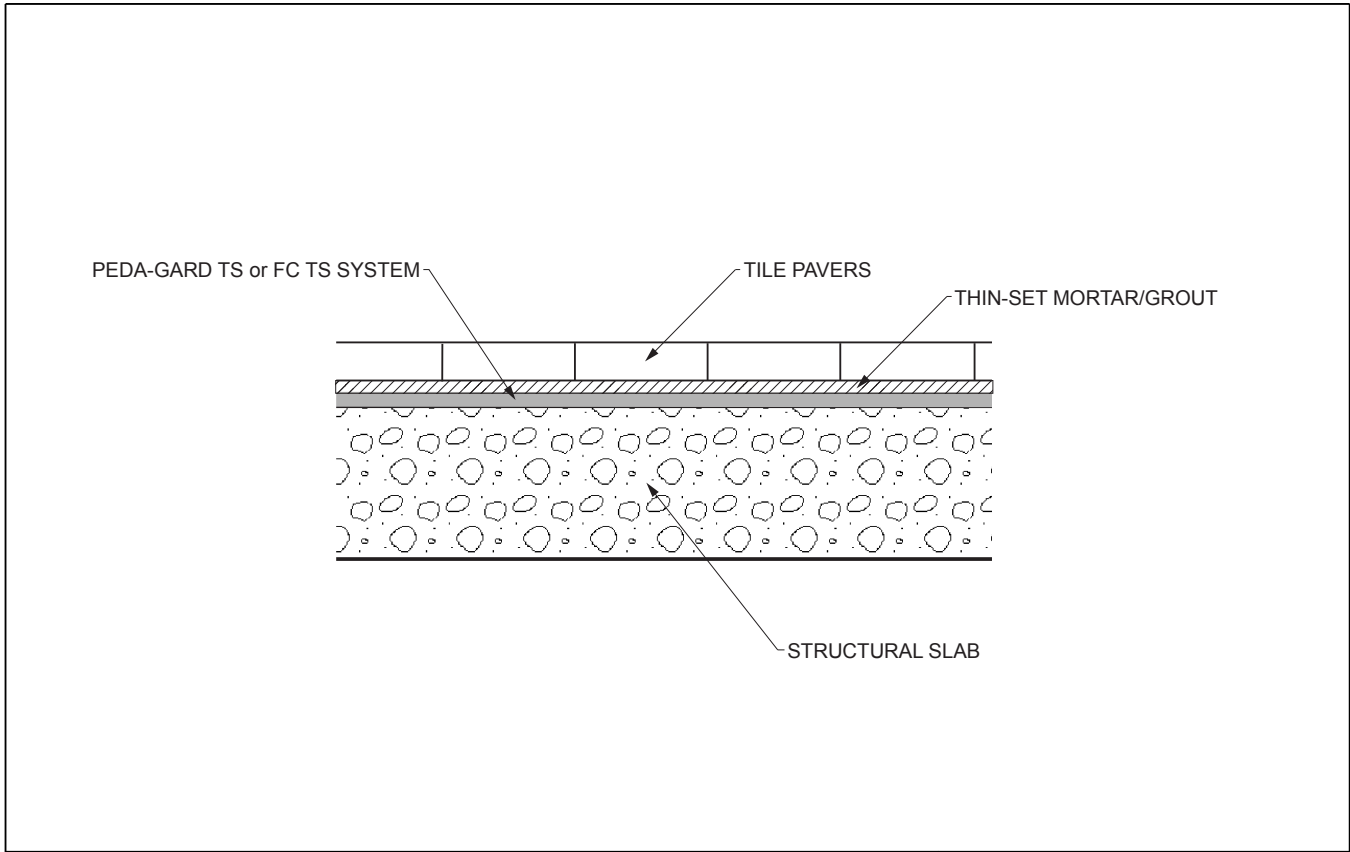
Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete at a rate of 300 sf/gal (0.33 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply FC7500/FC7960 two-component polyurethane at 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 26 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above. **Note: Do not leave base coat exposed for more than 5 days.**
4. Wear Coat: Thoroughly mix and apply FC7510/FC7961 two-component polyurethane at 160 sf/gal (0.62 gal/100 sf or 10 wet mils) to yield 10 dry mils and immediately broadcast 7992 aggregate, evenly distributed, into wet coating at the rate of 10 lbs/100 sf and allow to cure. Remove loose aggregate by blowing, sweeping or vacuuming.
5. Do not allow pedestrian traffic on coated surfaces for at least 48 hours at 75°F (23°C), 50% RH.



Summary Application Table for Peda-Gard FC TS

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7780/7781 or 7797/7798	4:1 2:1	300 sf/gal 300–500 sf/gal	N/A	1.5–2 hrs 5–6 hrs
Base Coat	FC7500/FC7960	9:1	60 sf/gal	26 WFT/26 DFT	3–4 hrs
Wear Coat Aggregate	FC7510/FC7961 7992	3:1	160 sf/gal 10 lbs/100 sf	10 WFT/10 DFT	5–6 hrs

Peda-Gard FC TS Detail Drawing



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

 NEOGARD <small>CONSTRUCTION COATINGS</small>	2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com		 JONES BLAIR <small>INDUSTRIAL COATINGS</small>
	Project: Thin-Set Tile		
Drawn by: D. Bigley K. Kirby	Scale: NTS	Date: 07/18/07 08/04/15	Drawing/Index No. WP-TS

Pool-Gard C

Materials (Hempel product numbers in parentheses)

- Primer: 7740/7741 (252J9/95WJB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Sealant: 70991 (47XJB) or other polyurethane sealant approved by NEOGARD®.
- Base Coat: 7825/7821 (47NJ9/ 947JB) polyurethane coating, black in color.
- Topcoat: 7825/7821 (47NJ9/ 947JB) polyurethane coating, black in color.
- Exterior Finish Primer: 33014/99951 (15059/ 95041) Ureprime HS4 epoxy urethane.
- Exterior Finish Coat: ACRYLITHANE™ HS2 or HS4 series urethane enamel.

Average Dry Film Thickness

- 48 dry mils (excluding exterior primer and finish coats).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Prime concrete with 7740/7741 epoxy primer mix at a rate of 200 sf/gal (0.5 gal/100 sf) and allow to cure.
3. Base Coat: Thoroughly mix and apply 7825/7821 two-component polyurethane at 66 sf/gal (1.5 gal/100 sf or 24 wet mils) to yield 24 dry mils and allow to cure. The Base Coat must be applied within 24 hours of priming, otherwise clean deck and re-prime as outlined above.

Note: Do not leave base coat exposed for more than 5 days.

4. Topcoat: Thoroughly mix and apply 7825/7821 two-component polyurethane at 66 sf/gal (1.5 gal/100 sf or 24 wet mils) to yield 24 dry mils and allow to cure.

Note: Exterior applications exposed to UV must be coated with Ureprime HS4 series primer and exterior finish coat.

5. Exterior Finish Primer: Thoroughly mix and apply 33014/99951 Ureprime HS4 at a rate of 300 sf/gal (0.33 gal/100 sf) over the final coat of 7825/7821 when cured.
6. Exterior Finish Coats: Thoroughly mix and apply two coats of ACRYLITHANE™ series urethane enamel at the rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils) to yield 4 to 5 dry mils per coat.

Note: If more than 24 hours lapse between finish coat applications, the first finish coat must be sanded prior to second finish coat application. Repeat this step for additional coats.

Caution: Allow entire Pool-Gard C coating system to cure for a minimum of 10 days prior to filling pool.

Summary Application Table for Pool-Gard C

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7740/7741	2:1	200 sf/gal	N/A	5 hrs
Base Coat	7825/7821	3:1	66 sf/gal	24 WFT/24 DFT	10 hrs
Topcoat	7825/7821	3:1	66 sf/gal	24 WFT/24 DFT	10 hrs
Exterior Finish Primer	Ureprime HS4	4:1	300 sf/gal	N/A	4 hrs
First Exterior Finish Coat	Acrylithane HS2	3:1	200 sf/gal	8 WFT/5 DFT	6 hrs
	Acrylithane HS4	4:1	200 sf/gal	8 WFT/4 DFT	6 hrs
Second Exterior Finish Coat	Acrylithane HS2	3:1	200 sf/gal	8 WFT/5 DFT	6 hrs
	Acrylithane HS4	4:1	200 sf/gal	8 WFT/4 DFT	6 hrs

Peda-Gard SC

Materials (Hempel product numbers in parentheses)

- Primer: 7740/7741 (252J9/95WJB).
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Reinforcing Fabric: 86220 (63BJB) reinforcing fabric (Tietex T-272).
- Sealant: 70991 (47XJB) urethane sealant.
- Liquid Flashing: 7430 series (57040) polyurethane coating.
- Base Coat: 7430 (57040) series polyurethane coating.
- Wear Coat: 7430 series (57040) polyurethane coating.
- Aggregate: 86364 (66030) silica quartz sand flooring aggregate .
- Topcoat: 7430 series (57040) polyurethane.
- CRU Finish: 70805/7952 (57029/95051) chemical resistant urethane.

Average Dry Film Thickness

- 42 dry mils (excluding primer and aggregate).

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Primer: Thoroughly mix and apply 7740/7741 primer at a rate of 300 sf/gal (0.33 gal/100 sf) to all concrete surfaces in strict accordance with procedures outlined by NEOGARD®. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, re-prime.
3. Base Coat: Thoroughly mix and apply 7430 series base coat material at a rate of 60 sf/gal (1.66 gal/100 sf or 26 wet mils) to yield 20 dry mils. Extend base coat over cracks and control joints which have received treatment.
4. Wear Coat: Thoroughly mix and apply 7430 series wear coat material at a rate of 200 sf/gal (0.5 gal/100 sf or 8 wet mils), to yield 6 dry mils and immediately broadcast aggregate, evenly distributed, into wet coating at the rate of 15 pounds per 100 square feet. When dry, remove excess aggregate.
5. Topcoat: Thoroughly mix and apply 7430 series topcoat material at a rate of 150 sf/gal (0.66 gal/100 sf or 10 wet mils) to yield 8 dry mils.
6. CRU Finish: Thoroughly mix and apply two coats of 70805/7952 chemical resistant urethane at the rate of 250 sf/gal (0.4 gal/100 sf or 6 wet mils) per coat, for a total of 8 dry mils.

Summary Application Table for Pool-Gard C

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Primer	7740/7741	2:1	300 sf/gal	N/A	5 hrs
Base Coat	7430 series	N/A	60 sf/gal	26 WFT/20 DFT	14 hrs
Wear Coat	7430 series	N/A	200 sf/gal	8 WFT/6 DFT	12 hrs
Topcoat	7430 series	N/A	150 sf/gal	10 WFT/8DFT	12 hrs
CRU Finish (2 coats)	70805/7952	2:1	250 sf/gal	12 WFT/8 DFT	N/A

Perma-Gard III

Materials (Hempel product numbers in parentheses)

- Primer: Concrete and metal primers as required by NEOGARD®.
- Flashing Tape: 86218 (62ZJB) flashing tape.
- Sealant: 70991 (47XJB) or other polyurethane sealant approved by NEOGARD®.
- Vertical Additive: 7922 (990JB) to enhance sag resistant properties of cold fluid-applied membrane waterproofing material.
- Cold Fluid-Applied Membrane: 7401 (47KJB) polyurethane.

Average Dry Film Thickness

- 60 dry mils

Application Instructions

1. Surface preparation: See Surface Preparation section in this Application Manual.
2. Cold Fluid-Applied Membrane: Thoroughly mix 7401 waterproofing material and apply at the rate of 23 sf/gal (4.25 gal/100 sf or 68 wet mils total thickness) in a minimum of two coats to yield 60 dry mils
Note: For vertical applications, add 7922 Vertical Additive at the rate of 8 ounces per 5 gallons of membrane waterproofing material. After mixing, an induction time of 30 minutes is required to achieve a sag resistance of 16–18 mils.
3. Flood Test For Horizontal Applications: Follow ASTM D5957 standard guide for flood testing horizontal waterproofing installations.
4. Waterproofed area shall be flood tested for 48 hours, after system has cured 24 hours at 75°F (23°C) and 50% R.H. prior to installation of protection course.
5. Plug drains on deck surface and use sand bags or other means to contain water.
6. Flood test to a depth of 2 inches for the duration of the test.
7. Repair any leaks that may appear.
8. Protection Course: Apply horizontal and/or vertical protection course in accordance with procedures recommended by protection course manufacturer.

Summary Application Table for Pool-Gard C

Coat	Product	Mix Ratio	Coverage Rate	Mils WFT/DFT	Approx Recoat Time @ 75°F (23°C)
Cold Fluid-Applied Membrane	7401	N/A	23 sf/gal	68 WFT/60 DFT	N/A

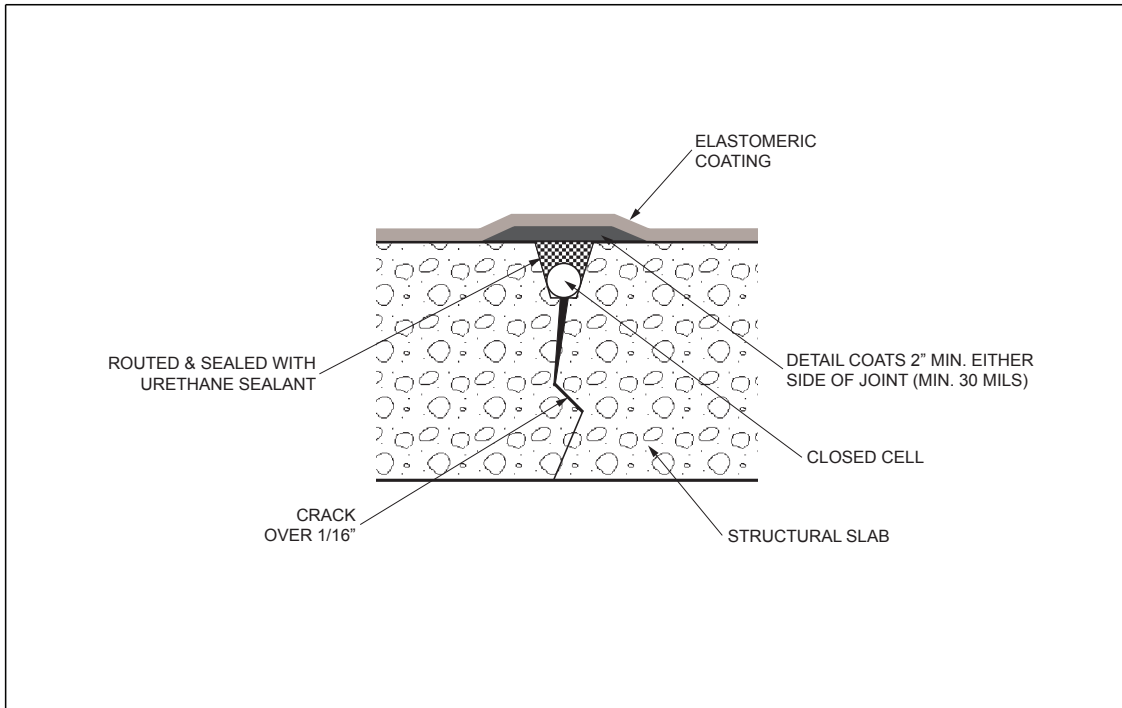


Detail Drawings



Introduction

The following details are utilized in the specification and design of NEOGARD® deck coating and waterproofing systems in both new and retrofit applications. They are provided to show a generally recommended procedure for dealing with the condition shown. They will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the details shown on their adaptation by an experienced and conscientious applicator should result in a quality project. If you have specific project related questions, contact NEOGARD® Technical Services at (800) 321-6588, or e-mail at techservice@neogard.com. These details are available to print and/or download at <http://www.neogard.com>.

Through Slab Crack



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

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	Project: Through Slab Crack		
Drawn by: K. Kirby	Scale: NTS	Date: 08/04/15	Drawing Index No. WP-TS1

Crack Detail

DETAIL COAT(S) 2" MIN. EITHER SIDE OF CRACK (MIN. 30 DRY MILS)

ELASTOMERIC COATING SYSTEM

ROUTED & SEALED WITH URETHANE SEALANT

CRACK LESS THAN 1/16" WIDTH

CRACK GREATER THAN 1/16" WIDTH

STRUCTURAL SLAB

Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

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Project: Crack Detail					
Drawn by:	Scale:	Date:	Drawing/Index No.		
K. Kirby	NTS	08/04/15	WP-02		

Vertical Projection

4" RECOMMENDED

RAIL POST

ELASTOMERIC COATING

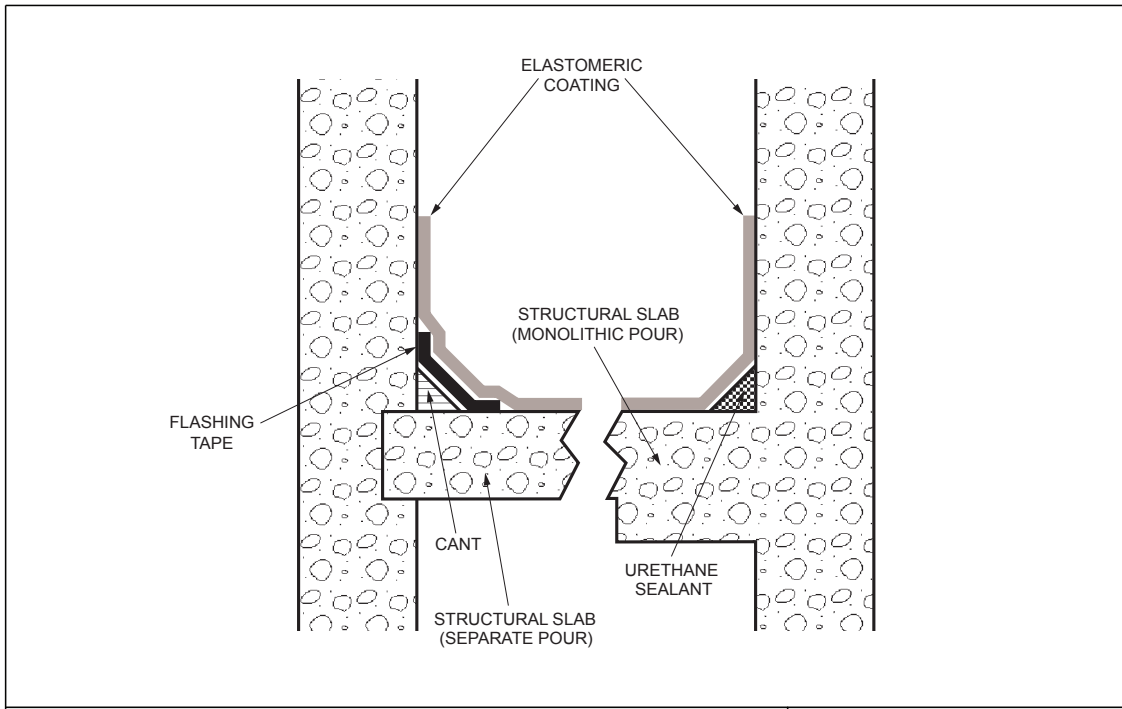
URETHANE SEALANT

POST EMBEDDED IN CONCRETE OR THREAD-TYPE SLEEVE ANCHORAGE

Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

		2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com			
Project: Vertical Projection					
Drawn by:	Scale:	Date:	Drawing/Index No.		
D. Bigley	NTS	09/13/11	WP-VP1		

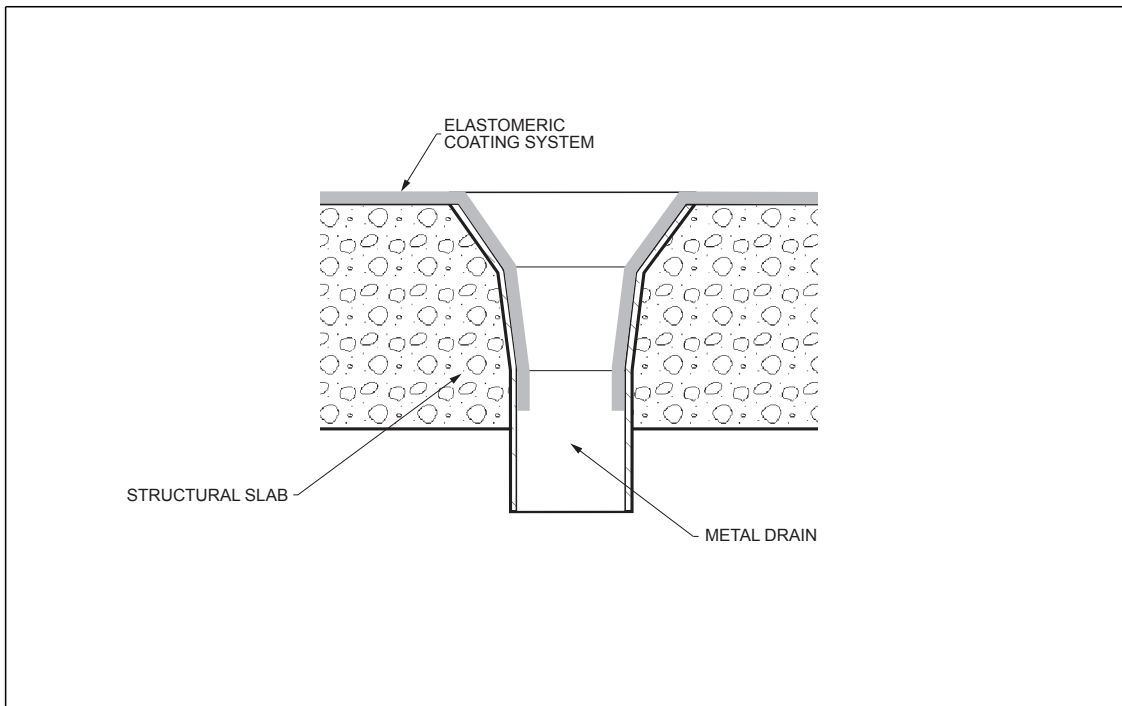
Typical Deck Flashing



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

 NEOGARD <small>CONSTRUCTION COATINGS</small>	2728 Empire Central Dallas, Texas 75236 (214) 353-1600 www.neogard.com	 JONES-BLAIR <small>INDUSTRIAL COATINGS</small>	
			Project: Typical Deck Flashing
Drawn by: D. Bigley	Scale: NTS	Date: 09/13/11	Drawing/Index No. WP-DF1

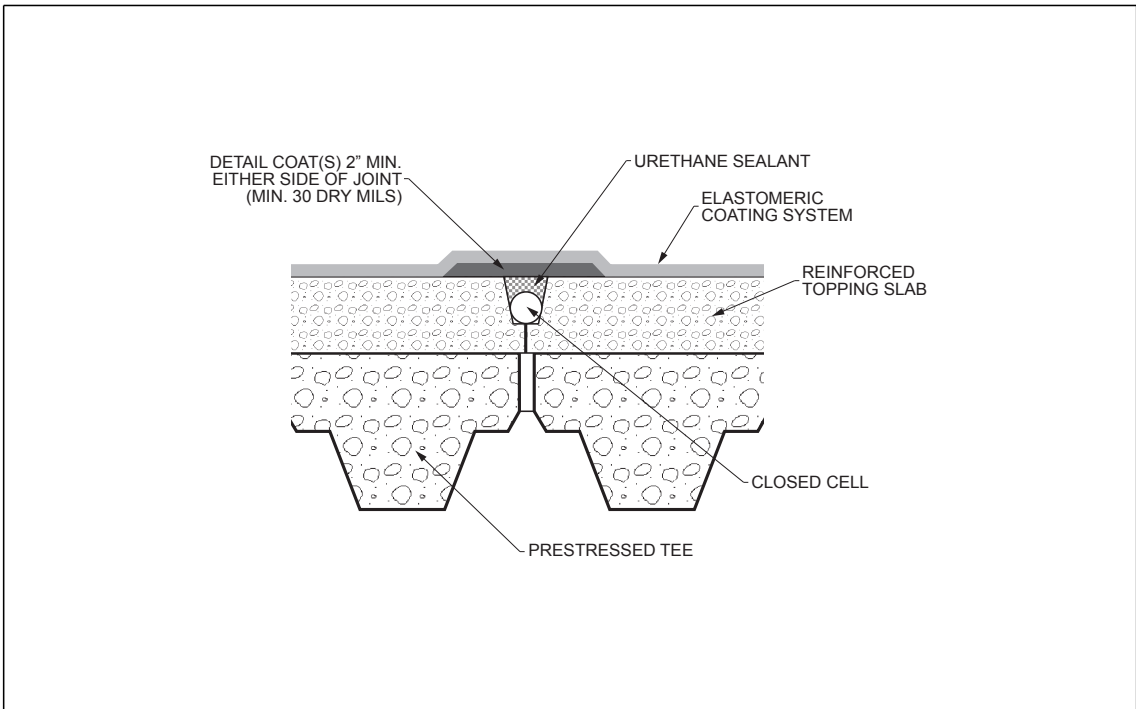
Drain Detail



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

 NEOGARD <small>CONSTRUCTION COATINGS</small>	2728 Empire Central Dallas, Texas 75236 (214) 353-1600 www.neogard.com	 JONES-BLAIR <small>INDUSTRIAL COATINGS</small>	
			Project: Drain Detail
Drawn by: D. Bigley	Scale: NTS	Date: 09/13/11	Drawing/Index No. WP-DD1

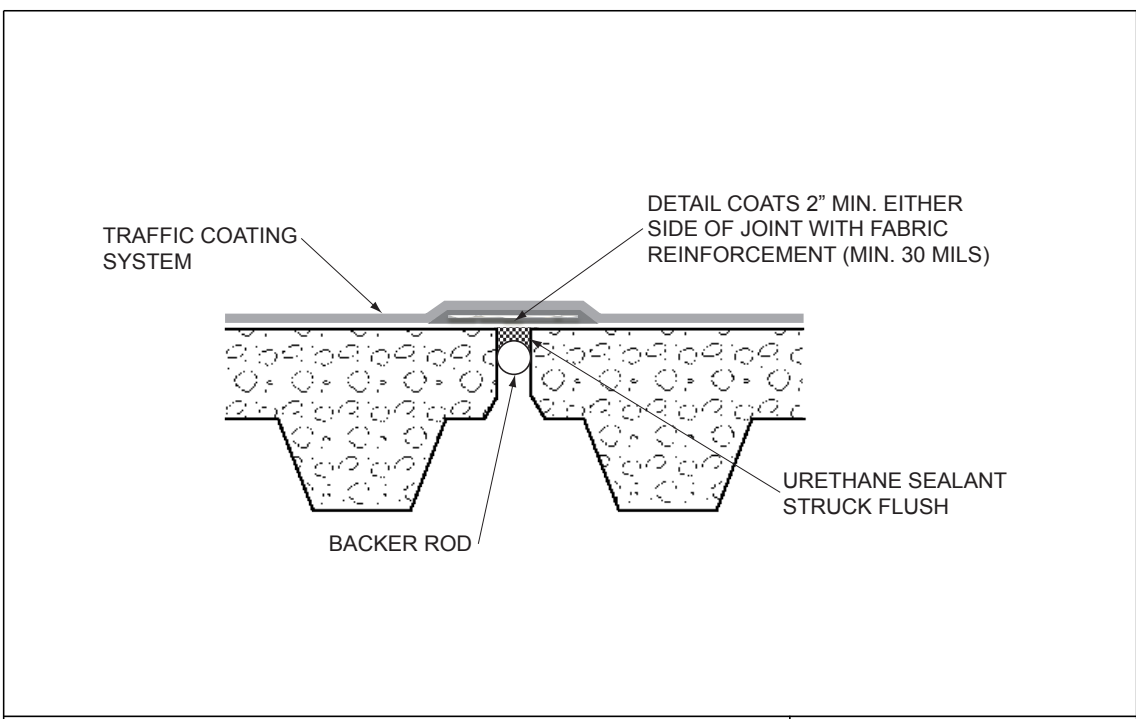
Double-Tee Crack Control



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

	2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com		
	Project: Double Tee Crack Control		
Drawn by: K. Kirby	Scale: NTS	Date: 08/04/15	Drawing/Index No. WP-01

Double-Tee Joint (Option)

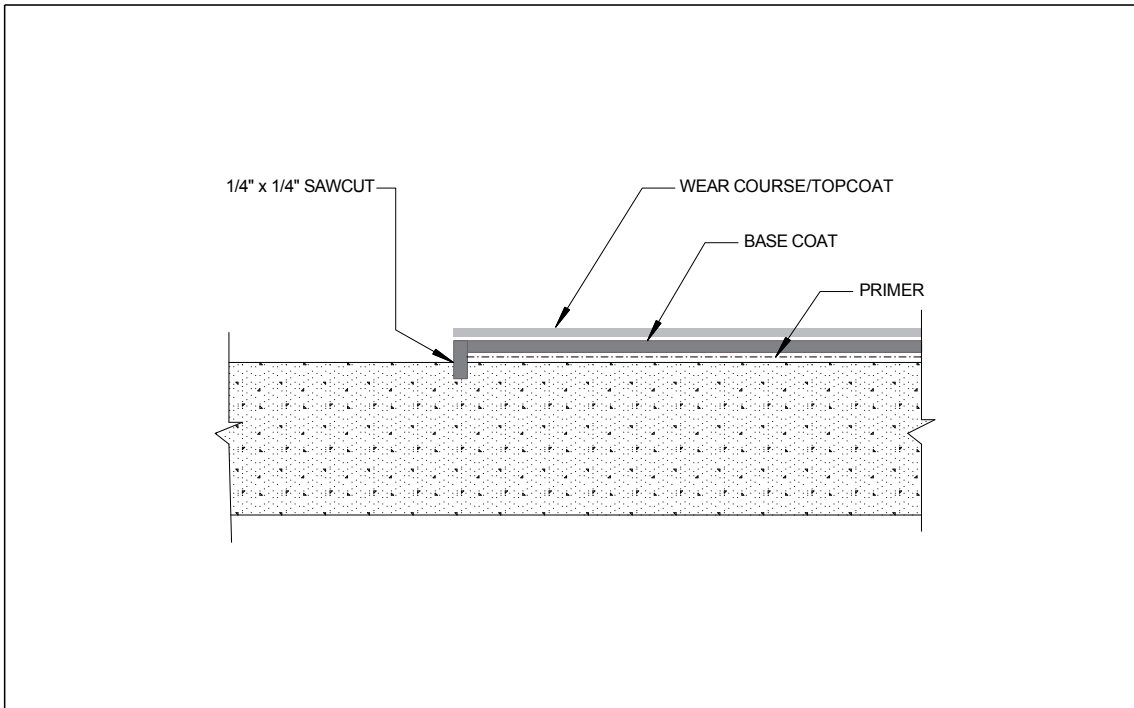


Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

	2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com		
	Project: Double Tee Joint (Option)		
Drawn by: K. Kirby	Scale: NTS	Date: 08/04/15	Drawing/Index No. WP-12

Horizontal

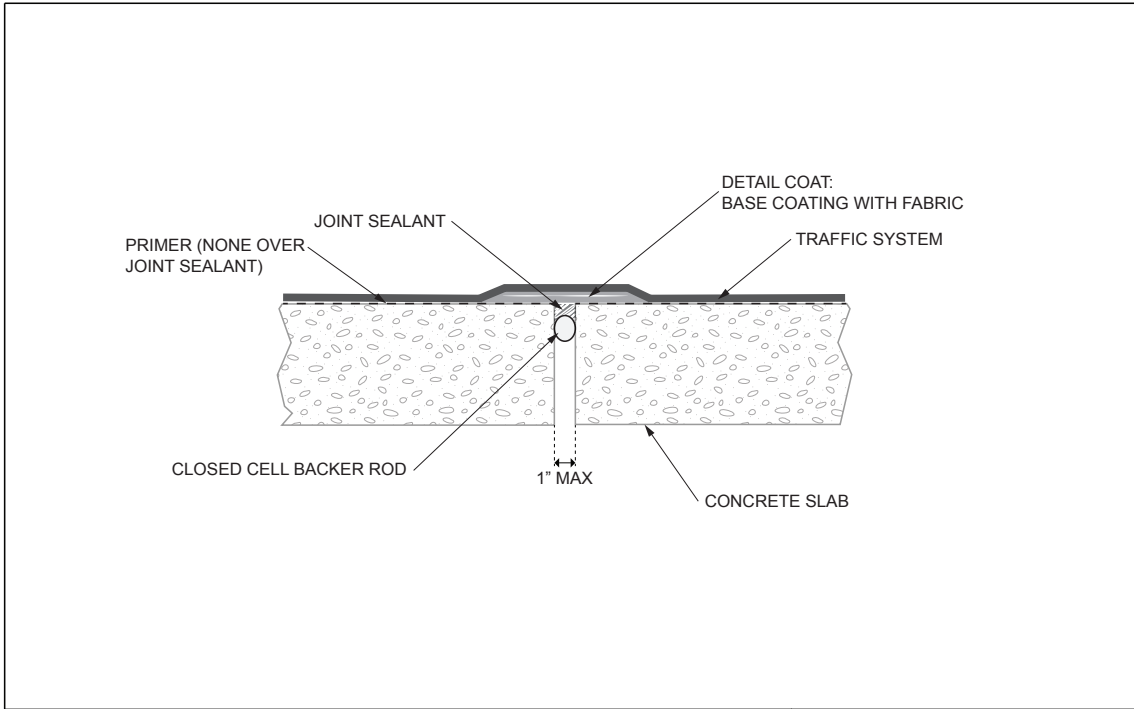
Termination



Note: This detail is utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

		2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com			
Project: Horizontal Termination					
Drawn by:	Scale:	Date:	Drawing/Index No.		
D. Bigley	NTS	08/01/12	WP-10		

Expansion Joint



Note: This detail is utilized in the specification and design of NEOGARD Flooring Systems, in both new and retrofit applications. It is provided to show a generally recommended procedure for dealing with the condition shown. It will not and cannot provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the detail shown or its adaptation by an experienced and conscientious applicator should result in a quality project.

		2728 Empire Central Dallas, Texas 75236 (214)-353-1600 www.neogard.com			
Project: Expansion/Isolation Joint Detail					
Drawn by:	Scale:	Date:	Drawing/Index No.		
K. Kirby	NTS	08/04/15	FL-008		



Recoat Guidelines

This section of the manual has been assembled to provide general information and procedures for recoating existing coating systems with NEOGARD® fluid-applied coatings. Whether recoating an existing NEOGARD® system or that of another manufacturer, it is highly recommended to perform a Field Adhesion Test, both with and without primer. For special aspects of repairs or when bidding a competitive recoat specification, contact your NEOGARD® Regional Manager for additional information.

Preparing to Recoat

Inspecting Existing Coating System, Exposed Concrete and Metal Substrates

1. Inspect existing coating system and remove all existing surface applied membrane material that is loose or marginally bonded.
2. Check exposed concrete surfaces for soundness. Detect concrete spalls in surfaces by tapping with a hammer or dragging a heavy chain and listening for a hollow sound. The hollow sound indicates problem areas. All spalled portions must be removed before further preparation. Removal can be completed with chipping hammers or other suitable tools.
3. Where concrete was removed, follow ICRI guidelines (<http://www.icri.org>) for preparation and installation of repair materials.
4. For smaller repairs such as divots, popouts, etc., NEOGARD® 70714/70715 Series epoxy mortar has many advantages:
 - NEOGARD® 70714/70715 Series epoxy is mixed with selected sand to form the mortar. In using this mortar, it is important to match the characteristics of the concrete being repaired. If a sand-to-binder ratio of approximately 4:1 or as much as 5:1 by volume is maintained, the thermal coefficient of expansion of the mix will closely approximate that of concrete. This prevents failure of the bond caused by freeze-thaw cycles or wide fluctuations in temperature. Repairs made with epoxy mortar should be no deeper than 1/2"–3/4". Large scale repairs to be made with conventional cement based repair materials/ICRI guidelines (<http://www.icri.org>).
 - Protrusions, such as fins or mortar spatter are easily removed by grinding or impact.
5. After the concrete, cementitious repair materials, or NEOGARD® 70714/70715 Series epoxy patching material has been placed and properly cured, solvent clean existing membrane perimeter adjacent to patch a minimum distance of one inch.
 - When patching concrete, new concrete patches and cementitious repair materials must be prepared by shot-blasting or a cup grinder prior to application of primer.
 - Verify dryness of concrete patches for a dry surface in accordance with ASTM D4263 "Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method", as outlined in the Concrete Moisture Testing section of this Application Manual.
6. All exposed metals to be coated should be mechanically prepared to a clean, white metal finish and primed with Ureprime HS4 or 7797/7798 General Purpose Primer, at a rate of 300–400 square feet/gallon.

Cleaning of Existing Coating System

1. Visually inspect deck for oil or grease deposits and remove by chemical cleaning with detergents, caustic soda solution, or trisodium phosphate. A vigorous scrubbing action should be carried out during the washing procedure. It is important to thoroughly flush the water to remove all traces of the loosened oil as well as the cleaning solution itself. If any residue remains, it will interfere with the bond of the new membrane.

2. Clean existing deck coating by power washing with 8500 BioDegradable Cleaner or other similar detergent at 600–800 psi. The use of stiff bristle brooms may be required to help remove some contaminants. Rinse deck thoroughly with clean water and allow to dry completely. All low spots where water puddles must be vacuumed dry to remove any contaminants left by the rinsing operation.
3. Visually re-inspect the deck. Repeat Steps 1 and/or 2 as needed.

Repairing Cracks and Installing Base Coat on Exposed Concrete Surfaces

1. Inspect all surfaces for cracks and cold joints. Cold joints and visible hairline cracks (up to 1/16" in width) in existing membrane or new patching material shall be cleaned, primed (on concrete or patching material) and treated with 30 dry mils of polyurethane Base Coat material. Large cracks (over 1/16" in width) shall be routed and sealed with 70991 or 70995 polyurethane sealant as recommended by NEOGARD®. Sealant shall be applied to inside area of crack only, not applied to deck surface. After sealant has cured, detail sealed cracks with 30 dry mils of polyurethane Base Coat material.

Note: Sealant must be solvent wiped. Allow solvent to flash off prior to installation of Base Coat detail stripe and/or Base Coat application.

2. Apply NEOGARD® primer to bare concrete or cementitious patching material. NEOGARD® 7797/7798 General Purpose Primer or 70714/70715 series 100% epoxy is recommended for priming prior to recoat. Apply NEOGARD® Base Coat to yield 20 dry mils. Apply 70410 solvent-based coating at a rate of 60 sf/gal (27 wet mils) OR FC7500/FC7960 Base Coat at 80 sf/gal (20 wet mils). Allow to cure.

Field Adhesion Testing

- Field Adhesion Testing must be performed onsite to determine the necessity of priming over existing systems and to verify material compatibility and adhesion.
- For acceptable testing methods, see the Field Adhesion Testing section of this Application Manual.

System Recoat Guidelines

The following recoat guidelines and application rates apply to recoating both existing pedestrian and vehicular coating systems.

1. As needed per the Field Adhesion Test results, apply 7797/7798 General Purpose Urethane Primer at a rate of 300 - 400 sf/gallon OR 70714/70715-09 100% solids epoxy at a rate of 200 sf/gallon to all surfaces.
2. As needed, apply Base Coat material to existing surface.
3. Apply Wear Coat and Topcoat material per standard NEOGARD guide specification for Vehicular or Pedestrian application.

Note: Existing 7430 systems may be recoated with 7430 without use of primer.

Note: Existing Decorative Peda-Gard systems must be abraded using a stainless steel wire cup wheel and solvent wiped with VOC compliant product, prior to recoat application.



Field Adhesion Testing

It is important to conduct field adhesion tests to confirm the proper procedure for recoating an existing coating system as well as system compatibility. NEOGARD® recommends performing one of the following adhesion tests. It is more useful to conduct adhesion testing in the field than in the lab as it represents the actual job conditions. The following are summaries of adhesions tests. For further information please refer to ASTM standards.

ASTM D903

Standard Test Method for Peel or Stripping of Adhesive Bonds. This test is also known as the “Adhesion in Peel” or “Peel Adhesion” test and results in a quantitative value stated in lbs./linear inch or PLI.

Items Needed

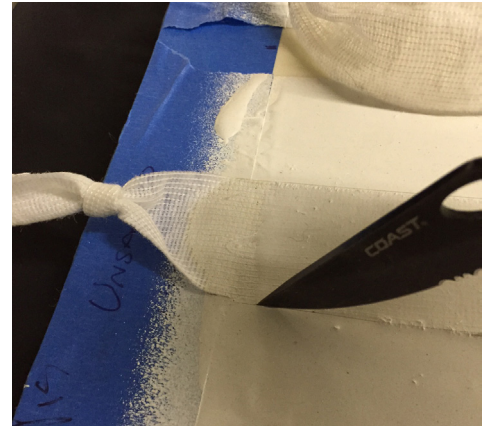
- Solvent/Cleaner
- Clean Rags
- Primer (if applicable)
- Coating Material
- 4” Roller/Cover or 3” Brush
- Fabric test strips cut to 1” x 18”-24”
- Painter’s Tape
- Utility Knife
- Spring Scale/Fish Scale (calibrated to pounds and ounces)

Procedure

1. Clean and prepare substrate as required by relevant specification.
2. If applicable, apply primer and allow to cure.
3. Apply coating at 16 wet mils. Coating is applied to an area 4” X 14” minimum.
4. Work fabric strips into wet coating, allowing 6” of fabric to remain free of coating. Adhere the loose end of fabric to the substrate utilizing painter’s tape.
5. Allow coating to cure.
6. Apply topcoat to test area at 16 wet mils.
7. Allow coating to cure 7–10 days.



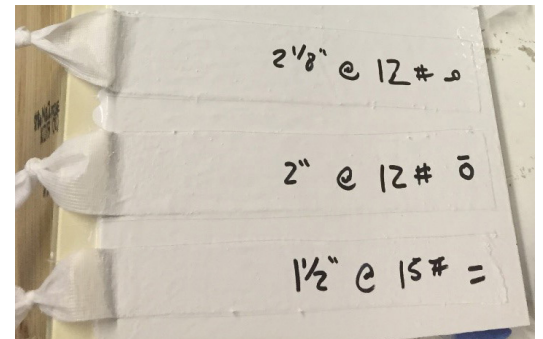
8. Remove painter's tape and tie a knot in the dry end of the fabric.
9. With the knife, score coating along the perimeter of the fabric.



10. Using a calibrated spring scale, hook the knot and pull back 180 degrees, parallel to the fabric.



11. Record the pounds per inch that separation occurred, making sure to divide the pounds of the pull by the width of fabric.
 - Test values of 4 to 5 pounds/inch for urethanes are acceptable for recoat situations.
 - Test values of 2 pounds/inch for acrylics are acceptable for recoat situations.



Rag Test

This test gives an indication of bond strength without numeric value. It is typically the recommended procedure for field adhesion tests. In these photos, the substrate is shown as white, primer is green and the coating is charcoal.

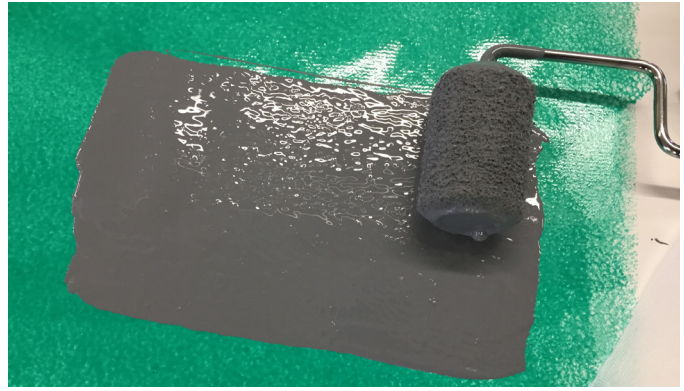
Items Needed

- | | |
|--------------------------|--------------------|
| • Solvent/Cleaner | • Coating |
| • Clean Rags | • Roller or Brush |
| • Primer (if applicable) | • Polyester Fabric |



Procedure

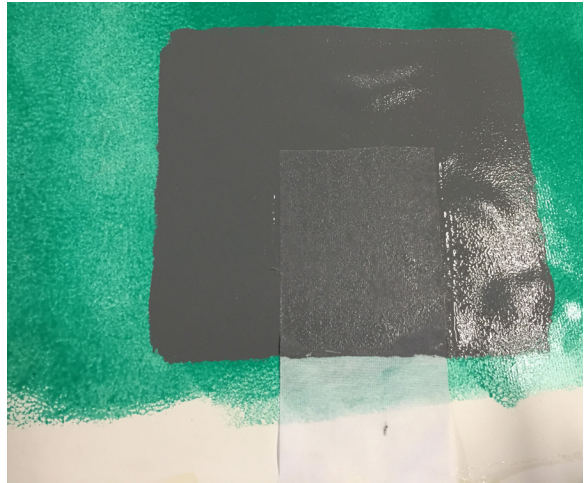
1. The substrate is prepared as required by the relevant specification.
2. If applicable, apply primer and allow to cure.
3. Apply coating with roller or brush..



4. Work fabric into wet coating.



5. Apply additional coating to embed fabric, allowing a minimum of 6" in length to remain free of the coating.



6. When coating has fully cured, generally allowing 7–10 days, pull the free end of the fabric back toward the test area for an indication of bond strength.



ASTM D7234 (Concrete Substrates)

This is a standard test method for determining pull-off strength of coatings using portable pull-off adhesion testers and was developed for concrete substrates. The following is a summary of the test procedure. For further instruction, please see the ASTM standard as well as directions provided by manufacturer of the portable pull-off adhesion tester.

Items Needed

- Solvent/Cleaner
- Clean Rags
- Utility Knife
- Adhesive
- Portable pull-off adhesion tester
- Puck or Dolly (loading apparatus)



Procedure

1. Score through coating down to concrete substrate at a diameter equal to diameter of the puck (dolly). Secure the puck (dolly) to the face of the coating with an adhesive.



2. Once the adhesive has cured, the portable pull-off adhesion tester is attached to the puck (dolly) and aligned to apply tension normal to the test surface.
3. The force applied to the puck (dolly) is then increased and monitored until a plug of material is detached.
 - When a plug of material is detached, the exposed surface represents the plane of limiting strength within the system.
 - The nature of the failure is qualified in accordance with the percent of adhesive and cohesive failures and the actual interfaces and layer involved.
 - The pull-off adhesion strength is computed based on the maximum indicated load, the instrument calibration data and the surface area stressed. Strength results using different portable pull-off adhesion testers may vary based on instrumental parameters.
 - Test values above 150 psi are considered acceptable for new and recoat applications.



ASTM D4541 (Metal Substrates)

This is a standard test method for determining pull off strength of coatings using portable pull-off adhesion testers and was developed for metal substrates. The following is a summary of the test procedure. For further instruction, please see ASTM standard as well as directions provided by manufacturer of the portable pull-off adhesion tester.

Items Needed

- Solvent/Cleaner
- Clean Rags
- Utility Knife
- Adhesive
- Portable pull-off adhesion tester
- Puck or Dolly (loading apparatus)



Procedure

1. Score through coating down to metal substrate at a diameter equal to diameter of the puck (dolly). Secure the puck (dolly) to the face of the coating with an adhesive.



2. Once the adhesive has cured, the portable pull-off adhesion tester is attached to the puck (dolly) and aligned to apply tension normal to the test surface.
3. The force applied to the puck (dolly) is then increased and monitored until a plug of material is detached.
 - When a plug of material is detached, the exposed surface represents the plane of limiting strength within the system.
 - The nature of the failure is qualified in accordance with the percent of adhesive and cohesive failures and the actual interfaces and layer involved.
 - The pull-off adhesion strength is computed based on the maximum indicated load, the instrument calibration data and the surface area stressed. Strength results using different portable pull-off adhesion testers may vary based on instrumental parameters.
 - Test values above 150 psi are considered acceptable for new and recoat applications.





Support Information

Coverage Rates

Theoretical vs Actual

Theoretical coverages are those calculated for glass-smooth surfaces with no allowances made for loss. Manufacturers publish theoretical coverages instead of actual coverages because they cannot anticipate job or surface conditions. Therefore, published coverage rates should only be used as a guide for estimating material requirements for a given job.

Actual coverage will be less than theoretical coverage. When coatings are applied over concrete, many factors, such as the surface texture, overspray loss, container residue, equipment characteristics, applicator technique, etc. will directly affect the amount of coating material required to meet the designed in-place dry film thickness (DFT). Therefore, it is very important that additional material be added to the theoretical quantities to ensure that the proper coating thickness is applied. Items to consider are:

- Shot-blasted Concrete—Even though the surface texture appears to be fairly smooth, this surface can require 5% to 15% additional material to the theoretical amount.
- Wind Loss—In spray applications, up to 30% of the coating may be lost due to wind. Consider using wind screens and add wind loss to your coating calculations.
- Miscellaneous Loss—A miscellaneous factor must be added to the theoretical coverage rate to cover losses due to material left in containers, equipment problems, etc. Use a percentage factor of between 3% to 10%, depending on the contractor's experience and efficiency.

Calculating Theoretical Coverage

Any liquid, when applied at a thickness of one mil (1/1000 inch) will cover 1604 square feet per gallon. Another way to state this is that one gallon of any liquid, applied over a 100 square foot surface, will be 16 mils thick when wet. To determine dry mils (or how much is left when the solvents are gone), multiply 16 (wet mils) times the solids content (by volume) of the particular liquid. Solids by weight should not be used in this formula.

Example:

- 50% solids by volume = 16 (wet mils) x 0.5 (50% solids by volume) = 8 dry mils.

To determine how much total material is required to cover 100 square feet, divide the total system thickness (expressed in mils) by the number of dry mils per gallon.

Example:

1. System = 32 dry mils total
2. Material (50% solids by volume) = 8 dry mils per gallon
3. 32 divided by 8 = 4 gallons per 100 square feet
4. % Solids by Volume X 1604 ÷ Desired Dry Mils = Coverage Rate

Calculating Actual Coverage

To determine total material requirements for a job, add estimated losses due to field conditions to theoretical coverages. Depending on jobsite conditions, up to 50% additional material may be required to meet the designed in-place dry film thickness (DFT).

Thinning and Cleaning Solvents

General Practices

NEOGARD® products are formulated to be installed as manufactured, without thinning. However, if thinning is required:

- Always consult the NEOGARD® Product Data Sheet prior to thinning the material.
- Use only NEOGARD® manufactured or other commercial grade solvents with NEOGARD® products.
- Be sure there is no moisture contamination in solvents, as it can produce adverse reactions.
- When thinning materials, always be aware of local VOC restrictions for coating applications before thinning.
- When thinning CA formulated coatings, Acetone is the recommended solvent.
- Never exceed recommended thinning rates (typically no greater than 10%). Excessive thinning may affect physical properties of coating.
- Never use solvents that contain alcohol in NEOGARD® urethane products. Alcohols react with polyurethane hardeners creating a permanent liquid state, or under-cured membrane.
- Thin and clean only with recommended products. Consult NEOGARD® for questions regarding solvents.
- Any thinning of materials should occur after materials are mixed.

Recommended Solvents

Product Number	Material Thinning	Equipment Cleaning
33014/99951 Ureprime HS4	21092	MEK
7790	Acetone	MEK
7740/7741	Not Recommended	Xylene Thinner
7760/7761	Xylene Thinner	Xylene Thinner
7780/7781	Not Recommended	Water
7797/7798	Xylene Thinner	Xylene Thinner
70714/70715	Not Recommended	Xylene Thinner
70718/70719	Xylene Thinner	Xylene Thinner
70410	Xylene Thinner	Xylene Thinner
7430 Series	Xylene Thinner	Xylene Thinner
7430-02 Series	Odorless Reducer 7055	Xylene Thinner
7825/7821	Xylene Thinner	Xylene Thinner
FC7500/FC7960	Odorless Reducer 7055	Xylene Thinner
FC7510/FC7961	Odorless Reducer 7055	Xylene Thinner
FC7530/FC7963	Odorless Reducer 7055	Xylene Thinner
FC7540/FC7964	Odorless Reducer 7055	Xylene Thinner
ACRYLITHANE™ HS2	21092	MEK

Primers

When applied directly to concrete or plywood, NEOGARD® traffic bearing systems typically require a primer. There are also instances that a primer is required when recoating an existing system. Within 24 hours of application of primer, Base Coat must be applied. If Base Coat cannot be applied within 24 hours, inspect surface for contaminants, clean surface as necessary, and re-prime. Listed below are the most frequently recommended primers, along with a brief description of uses and limitations. For information on specialty primers for metal and existing coating systems, contact NEOGARD® Technical Services at (214) 353-1600, or email at techservice@neogard.com.

Caution: Do not apply epoxy primers to urethane sealants.

Hempel product numbers in parentheses.

Note: Pot Life times are approximate.

7797/7798 (254J9/946JB)

- This two component, high solids, low odor urethane primer is typically used as a rebond or recoat primer over existing urethane coatings and as a general purpose primer for use on concrete and most metal substrates.
- Mix Ratio: 2:1
- Kit Size: 3-gallon
- Pot Life: 30–40 minutes
- Cure Time: 6 hours @ 75°F (23°C).

7760/7761 (2510957930/95054)

- This two component, solvent borne epoxy primer is most commonly used with NEOGARD®'s single component, solvent borne systems including Auto-Gard and Peda-Gard, where odor and low VOC are not a concern.
- Mix Ratio: 1:1
- Kit Size: 2- or 10-gallon
- Pot Life: 3–4 hours.
- Cure Time: 1.5 hrs @ 75°F (23°C).

7780/7781 (280J95L071/98060)

- This two component water-borne epoxy primer is typically recommended for use with NEOGARD®'s two-component, high solids, low odor, low VOC Auto-Gard FC and Peda-Gard FC systems. This primer may also be used with standard Auto-Gard and Peda-Gard systems.
- Do not apply if temperatures are 40°F or below during curing process.
- Mix Ratio: 4:1
- Kit Size: 5-gallon
- Pot Life: 6 hours (Note: do not use mixed material after 6 hours)
- Cure Time: 1.5 hrs @ 75°F (23°C).

7740/7741 (252J9/95WJB)

- This two component, ultra high solids epoxy primer is moisture tolerant, is specifically designed for the Pool-Gard C system although it can also be used as a primer for any of the NEOGARD® traffic bearing waterproofing systems.
- Mix Ratio 2:1
- 3-gallon kit.
- Pot Life: 2 hours.
- Cure Time: 5 hrs @ 75°F (23°C).

70714/70715 (45069/95073)

- This high performance, 100% solids epoxy can be used as a primer for any of the NEOGARD® traffic bearing waterproofing systems and as a concrete overlay or re-surfacer. This product is low odor, moisture tolerant, low VOC, and may be applied in high humidity environments.
- Mix Ratio: 2:1
- Kit Size: 3- or 15-gallon
- Pot Life: 30 minutes.
- Cure Time: 8–9 hrs @ 75°F (23°C).

70714/70715-01 (45069/95074)

- This high performance, fast-set version of 70714/70715 100% solids epoxy, can be used as a primer for any of the NEOGARD® traffic bearing waterproofing systems and as a concrete overlay or re-surfacer. This product is low odor, moisture tolerant, low VOC, and may be applied in high humidity environments.
- Mix Ratio: 2:1
- Kit Size: 3- or 15-gallon
- Pot Life: 15 minutes.
- Cure Time: 2–3 hrs @ 75°F (23°C).

70714/70715-09 (45069/95075)

- This general purpose, 100% solids epoxy can be used as a primer for any of the NEOGARD® traffic bearing waterproofing systems and as a concrete overlay or re-surfacer. It is low odor and low VOC. Do not use as a primer in high humidity environments as this product is less moisture tolerant than 70714/70715 and 70714/70715-01, and blushing may occur.
- Mix Ratio: 2:1
- Kit Size: 3- or 15-gallon
- Pot Life: 60 minutes
- Cure Time: 8–9 hrs @ 75°F (23°C).

Additives

Accelerators

7923, 7925, and 7931 are liquid additives to be used with single and two component urethane coatings to accelerate the cure. They are intended for low temperature applications as well as conditions requiring earlier use than the physical properties could have developed under ambient conditions. In order to fully utilize the effectiveness of accelerators and achieve a more rapid turn around time, it is advised to keep the components as close as possible to ambient temperature of approximately 70°F (21°C), prior to installation. Although the Curing Charts for several products are on the following pages in this manual (they can also be found at <http://www.neogard.com>), a general guide to determine which accelerator to use is as follows:

Hempel product numbers in parentheses.

- 7923 (95053): Standard accelerator for NEOGARD® single-component, solvent-borne, aromatic and aliphatic urethanes.
- 7925 (991JB): “Fast” accelerator for NEOGARD® single-component, solvent-borne, aromatic and aliphatic urethanes.
- 7931 (99055): Low humidity accelerator for NEOGARD® single-component, solvent-borne, aromatic and aliphatic urethanes. Can also be used with NEOGARD® FC7510/FC7961, FC7540/FC7964 and FC7545/FC7964.

Note: Do not use 7931 with FC7500/FC7960 or FC7530/FC7563.

Odor Masks

- 7986 (994JB): A synthetic vanilla odor mask for single component urethanes. Use at a rate of 3 oz. per 5 gallons or 1 quart per 55 gallons of product.
- 7987 (995JB): An orange-scented odor mask for single component urethanes. Bio-based/biodegradable solvent, rated per FDA guidelines as Generally Recognized As Safe (GRAS). Use at a rate of 3 oz. per 5 gallons or 1 quart per 55 gallons of product.

Vertical Additive

- 7922 (990JB): Vertical Additive is designed to enhance the sag resistant properties of NEOGARD® single component, solvent borne, aromatic urethane coatings only, with a 30 minute induction time.

Note: 7922 creates an accelerator effect and quickly reduces pot life.

Product	7922 Per 5 Gallons	Sag Resistance (mls)
7401	1/2 Pint	16–18
7425	2 x 1/2 Pint	14–16
7430	2 x 1/2 Pint	14–16
7435	2 x 1/2 Pint	14–16
70410	1/2 Pint	14–16
7470	Do Not Use	N/A

Caution: Do not exceed these dosage rates without consulting NEOGARD® Technical Service.

Curing Charts

Please refer to the NEOGARD® Product Data Sheets for accelerators/additives that are appropriate for a specific product. Examples of how these accelerators can affect recoat times are as follows:

70410

Conditions		40°F (4°C), 60%RH		75°F (23°C), 50%RH		95°F (35°C), 50%RH	
Accelerator	Amount	Pot Life	Recoat Time	Pot Life	Recoat Time	Pot Life	Recoat Time
None	None	>7 days	48 hrs	> 7 days	14 hrs	> 7 days	12 hrs
7931	4 oz/5 gal	> 24 hrs	22 hrs	> 24 hrs	10 hrs	> 24 hrs	8 hrs
7931	8 oz/5 gal	> 24 hrs	21 hrs	> 24 hrs	7.5 hrs	> 24 hrs	6 hrs
7931	16 oz/5 gal	> 24 hrs	23 hrs	> 24 hrs	9 hrs	12 hrs	7 hrs
7923	8 oz/5 gal	> 24 hrs	20 hrs	12 hrs	10 hrs	8 hrs	8 hrs
7923	16 oz/5 gal	11 hrs	13 hrs	4 hrs	7 hrs	2.5 hrs	5.5 hrs
7925	8 oz/5 gal	5 hrs	23 hrs	2.6 hrs	8 hrs	2.3 hrs	6 hrs
7925	12 oz/5 gal	3 hrs	20 hrs	1 hr	6.5 hrs	1 hr	5 hrs
7925	16 oz/5 gal	3 hrs	14 hrs	0.5 hrs	5 hrs	0.5 hrs	4.5 hrs
7925	20 oz/5 gal	2.5 hrs	11 hrs	0.3 hrs	4.5 hrs	0.3 hrs	4 hrs

7430

Conditions		40°F (4°C), 60%RH		75°F (23°C), 50%RH		95°F (35°C), 50%RH	
Accelerator	Amount	Pot Life	Recoat Time	Pot Life	Recoat Time	Pot Life	Recoat Time
None	None	>7 days	37 hrs	> 7 days	14 hrs	> 7 days	11 hrs
7931	4 oz/5 gal	> 24 hrs	24 hrs	> 24 hrs	12 hrs	> 24 hrs	10 hrs
7931	8 oz/5 gal	> 24 hrs	20 hrs	> 24 hrs	9 hrs	>14 hrs	8 hrs
7931	16 oz/5 gal	> 24 hrs	10 hrs	>16 hrs	6 hrs	11 hrs	5 hrs
7923	8 oz/5 gal	> 24 hrs	26 hrs	15 hrs	12 hrs	12 hrs	10 hrs
7923	16 oz/5 gal	20 hrs	20 hrs	10 hrs	13 hrs	8 hrs	9 hrs
7925	8 oz/5 gal	> 24 hrs	12 hrs	> 24 hrs	5 hrs	> 24 hrs	5 hrs
7925	12 oz/5 gal	20 hrs	8 hrs	8 hrs	3.5 hrs	6.5 hrs	3 hrs
7925	16 oz/5 gal	8 hrs	6 hrs	1.7 hrs	2.5 hrs	1.5 hrs	2 hrs

FC7540/FC7964

Conditions		50°F (10°C), 50%RH	59°F (15°C), 50%RH
Accelerator	Amount	Cure Time	Cure Time
None	None	9 hrs	6 hrs
7931	0.5% by volume	4.5 hrs	2 hrs
7931	1.0% by volume	3.5 hrs	1.5 hrs

Weather Impact on Polyurethane Coating Materials

NEOGARD® single-component and two-component polyurethanes are designed to be applied through an ambient temperature range of 70°–90°F (21°–32°C) to provide ideal handling and application characteristics.

Cold Weather Impact

Caution: Substrate temperatures can affect the cure of polyurethane materials as much as or more than ambient temperatures. Application of heated material to a cold substrate will not reduce the curing time. Consult NEOGARD® for recommendations.

As material component temperatures become colder and start to drop below 60°F, they increase in material viscosity. An increase in material viscosity increases the material's resistance to flow and can result in the following:

- Single component systems that utilize accelerators become difficult to mix. If the accelerator is not thoroughly mixed with the polyurethane, the cure of the material can be slowed down.
- Plural component systems also become more difficult to mix together. If a thorough mix is not obtained, the off-ratio mixture can cause improper curing.
- Polyurethanes become more difficult to spray. They produce erratic spray pressures, poor atomization, fingering at the spray tip or a complete loss of the spray pattern. Some applicators are tempted to add solvent to the polyurethane material so that it can be sprayed. Unfortunately, adding solvent may slow down the cure time and change the thixotropy and resulting dry film thickness. All of this can lead to material puddles, uneven coating coverage and an added expense to the job cost in the form of downtime.
- Accelerators and catalysts are packaged to provide good potlife and reasonable cure of materials at 70° to 90°F (21–32°C). As material temperatures become colder and start to drop below 60°F (16°C), the potlife of the material is increased and the speed of the cure may be severely reduced. If the material is applied at 60°F (16°C) (material temperature) and the air temperature drops to 40°F (4°C) or below, the cure is slowed down; particularly if windy conditions exist. The cure is further retarded due to slow solvent evaporation at cold temperatures. Materials that normally cure at a rate of 8–12 hours can be extended to 14–24 hours or more.

Don't risk these problems. Keep enough material at 70–80°F (21–26.6°C) for about 2 days of production. This will minimize the storage space required to keep the material warm. Refer to "Additives" and "Curing Charts" in the Support Information section of this manual when these conditions exist. When possible, apply the coatings earlier in the day, making sure the substrate is dry, and quit early enough to allow several hours of cure from the sun. Remember, if the application area is enclosed with no exchange of air over the membrane, the relative humidity (moisture) may be severely reduced, resulting in a slow curing time.

Hot Weather Impact

High substrate, ambient, and material temperatures can impact material viscosity and accelerate the curing process. Single component, solvent based products cure from the top down. If the surface of the coating skins over too quickly, the solvents that are released during the curing process become trapped, resulting in blisters and/or bubbles in the coating. Two component products are also affected by high temperatures. Pot life and working time can be reduced significantly. To minimize the impact of high temperatures during coating application:

- Store material in a cool, dry place; never in direct sunlight or in areas of high temperatures. The mixing station should also be in a shaded area.
- Consider coating in the evening as the substrate cools, or if applicable, on the shady side of the building. This will help to minimize outgassing as the material cures and extend working time of the material.
- As the material viscosity decreases, the sag resistant properties will also be affected. In sloped areas, it may be necessary to apply the specified system in thinner coats, increasing the number of coats required to apply the full system. NEOGARD® 7922 Vertical Additive is compatible with most NEOGARD® single component, solvent based coatings and will enhance the sag resistant properties of the coating material. Contact NEOGARD® Technical Services for specifics.

Dew Point of Moist Air

The NEOGARD® Technical Guide Troubleshooting Manual can be found at <http://www.neogard.com>. It offers additional solutions for many of the challenges presented by both weather impact and project conditions.

Dew Point is the temperature at which moisture will condense on a surface. No coatings should be applied unless surface temperature is a minimum of 5°F (3°C) above this point. Temperature must be maintained during curing.

This table illustrates how to determine the dew point:

		Ambient Air Temperature										
		20°F -7°C	30°F -1°C	40°F 4°C	50°F 10°C	60°F 16°C	70°F 21°C	80°F 27°C	90°F 32°C	100°F 38°C	110°F 43°C	120°F 49°C
Relative Humidity	90%	18°F	28°F	37°F	47°F	57°F	67°F	77°F	87°F	97°F	107°F	117°F
	85%	17°F	26°F	36°F	45°F	55°F	65°F	75°F	84°F	95°F	104°F	113°F
	80%	16°F	25°F	34°F	44°F	54°F	63°F	73°F	82°F	93°F	102°F	110°F
	75%	15°F	24°F	33°F	42°F	52°F	62°F	71°F	80°F	91°F	100°F	106°F
	70%	13°F	22°F	31°F	40°F	50°F	60°F	68°F	78°F	88°F	96°F	105°F
	65%	12°F	20°F	29°F	36°F	47°F	57°F	66°F	76°F	85°F	93°F	103°F
	60%	11°F	19°F	27°F	36°F	45°F	55°F	64°F	73°F	83°F	92°F	101°F
	55%	9°F	17°F	25°F	34°F	43°F	53°F	61°F	70°F	80°F	89°F	96°F
	50%	6°F	15°F	23°F	31°F	40°F	50°F	59°F	67°F	77°F	86°F	94°F
	45%	4°F	13°F	21°F	29°F	37°F	47°F	58°F	64°F	73°F	82°F	91°F
	40%	1°F	11°F	18°F	26°F	35°F	43°F	52°F	61°F	69°F	78°F	87°F
	35%	-2°F	8°F	16°F	23°F	31°F	40°F	48°F	57°F	65°F	74°F	83°F
30%	-6°F	4°F	13°F	20°F	28°F	36°F	44°F	52°F	61°F	69°F	77°F	

Example: If ambient air temperature is 70°F and relative humidity is 65%, the dew point is 57°F. No coating should be applied unless the surface temperature is 62°F (17°C) minimum (57°F + 5°F = 62°F).

Epoxy Patching

NEOGARD® 70714/70715 series epoxy patching materials are two component 100% solids epoxy resins, specially formulated to use in dry, damp (no standing water) or humid environments and have excellent chemical resistance.

Note: 70715/70715-09 is moisture sensitive and is not recommended for use in damp or humid conditions.

Surface Preparation

- Remove dust, laitance, grease, curing compounds, waxes and other foreign materials.
- Prepare concrete by shot-blasting, acid etching or diamond grinding.
- Surface must be clean and sound before patching.

Mixing

- Always read labels for mix ratios.
- Improper mix ratios can result in soft or uncured material.
- Always use clear 70714/70715, 70714/70715-01 or 70714/70715-09. Use a slow speed drill (600 rpm) with a Jiffy Mixer paddle. Mix only what can be used within the pot life of the material. Refer to the NEOGARD® Product Data Sheet for pot life information.

Application

- For minor patches and cracks up to 3/4" wide and 1/2" deep, use P1934 fumed silica mixed with clear 70714/70715, 70714/70715-01 or 70714/70715-09 epoxy at a ratio of 3 parts of silica to 1 part of mixed epoxy by volume.
- Place the patching material onto cracks, holes or pop outs and then strike flush with a putty knife or trowel. Let cure before installing the flooring system.
- For major patches and cracks greater than 3/4" wide and 1/2" deep, use 86364 aggregate mixed with clear 70714/70715, 70714/70715-01 or 70714/70715-09 epoxy mixed at a ratio of 4 parts of 86364 to 1 part of mixed epoxy, by volume.

Note: 1 gallon of mixed epoxy and 4 parts of 86364 aggregate will cover 21.7 square feet @ 1/4" depth.

- Apply with a trowel and finish off level with surrounding surfaces.
- For larger area resurface patching, mix clear 70714/70715 or 70714/70715-09 epoxy with 86468 silica flour at a ratio of 1:1 by volume to make a slurry.
- Apply with a notched trowel or squeegee to desired thickness and then broadcast 86364 or 7992 silica sand to refusal.

Surface Conditioners for Structural Concrete Decks

Use

Surface conditioners are used to fill voids, areas of aggregate loss and excessively rough, damaged or exposed aggregate surfaces prior to the application of NEOGARD® Auto-Gard and Peda-Gard traffic bearing waterproofing systems in order to assure effective installation and long term performance.

Description

NEOGARD® offers two variations of surface conditioners for patching or resurfacing structural concrete decks. They are:

- 70702/70703 two component, 100% solids epoxy slurry that is specially formulated to resurface deteriorated concrete to leave a smooth, durable finish.
- 70714/70715-09 two-component, 100% solids epoxy resin, designed as an economical super high strength binder. Mixing #200 fumed silica flour into the mixed epoxy makes an excellent concrete surface conditioner. The following mix will yield approximately 4.8 gallons of mixed material. Spread at approximately 50 square feet per gallon.
 - 3 parts by volume mixed epoxy
 - 3 parts by volume #200 fumed silica flour

Application Methods

- For a smooth surface, apply epoxy slurry mix to effected areas with a notched squeegee and allow to cure. Do exceed 1/4" in depth per application.
- For filling in depressed, scaled or exposed aggregate areas of the structural slab, spread epoxy slurry mix to affected areas with a notched squeegee and immediately broadcast 16-30 mesh aggregate into wet mix to rejection. Do not exceed 1/2" in depth per application. Allow to cure and remove excess aggregate.

Note: The surface profile obtained by broadcasting 16-30 mesh aggregate into the epoxy slurry will leave a rough surface and will require a grout coat of neat epoxy applied at the rate of 1/2 gallon per 100 square feet or a fill coat of polyurethane Base Coat at the rate of 3/4 gallon per 100 square feet prior to the application of either Auto-Gard or Peda-Gard. In lieu of applying the epoxy neat coat or polyurethane Base Coat, surface can be ground smooth with the use of terrazzo or portable cup grinders.

Safety

- Consult the product's Safety Data Sheet (SDS) for instructions on safety and handling.



Safety and Storage

Caution: Failure to follow these instructions can result in bodily injury or property damage.

Introduction

NEOGARD® produces two basic types of coatings for surface applied waterproofing systems: solvent solution and solvent-free coatings. Each type has specific hazard potentials and storage requirements. Solvent solution coatings have hazards associated with fire, solvent toxicity, and chemical toxicity. Solvent-free coatings have low fire risk but may require special care because of chemical toxicity.

Both the employer and workman must know precautions necessary to protect against fire, explosive combustion and toxicity. Keep material MSDS on jobsites at all times. Refer to individual MSDS, product labels, product data sheets and application specifications which describe specific hazards content, proper use, and storage recommendations.

An important safety precaution against fire, explosion and chemical toxicity is to provide ventilation at all times. Most coating applications are in open exterior areas where natural ventilation minimizes hazards.

When natural air movement is insufficient as in a confined area, forced air ventilation is required. Confined areas are best ventilated by equipment which exhausts the air from near floor level, since solvent vapors are heavier than air and tend to collect in low areas. A competent, properly equipped person must be stationed outside confined areas while work is in progress to assist in case of emergency.

Fire and Explosion Prevention

- Flash points are listed for each NEOGARD® product containing solvent on the appropriate product data sheet. The workmen and foreman must know the flash point of the material being applied. The flash point is the lowest temperature at which a coating gives off sufficient solvent vapor to form an ignitable mixture with air. This mixture of solvent vapor and air can then be ignited by an outside source such as sparks, flame, lit cigarettes and others.
- Open flame, welding, smoking or other ignition sources shall not be allowed in a building, overhead, or near a building where coating is being or has been recently applied. Open flame, welding, smoking, etc. shall be restricted downwind of a coating operation. No smoking, welding or open flame shall be allowed near outlets where solvent vapor laden air is being discharged.
- All electrical equipment and outlets must be grounded. This includes switches, connectors, lights and motors. Lights must have a protective enclosure to prevent physical damage. Whenever solvent vapors are present, all electrical equipment must be explosion proof. It is the responsibility of the workmen and their foreman to verify who is to check these precautions. An applicator employee must be appointed this duty.
- Any equipment, such spray guns and compressed air nozzles, which can produce a static charge must be grounded.
- Work clothes must be of a material such as cotton which does not generate static charges. Beware of synthetic materials. Shoes shall not have metal sole plates since these cause sparking.
- All hand tools used in solvent vapor areas must be of non-sparking construction. When non-complying tools must be used, remove equipment to an area free of solvent vapor or exhaust solvent-laden air thoroughly before beginning work.
- Have fire extinguishers as prescribed by OSHA within easy access of work areas where solvent coatings are being applied. Dry chemical and CO₂ (carbon dioxide) extinguishers are effective in controlling small solvent fires.

- Ventilation shall be provided to coated areas not only during application but also for sufficient time after, to assure complete evaporation of solvents.

Toxicity and Health Considerations

- Inhalation of solvent vapors in high concentration, above 200 parts per million, can induce narcosis, a physiological effect similar to intoxication by alcohol. Continued exposure to high concentration can cause loss of consciousness and ultimately death. The maximum allowable concentration of NEOGARD® type solvent vapors on a weighted eight hour working day is limited to 100 parts per million as published by the Occupational Safety and Health Administration (OSHA). This is a concentration at which nearly all workers can be repeatedly exposed without adverse effects.
- Small, portable air sampling equipment is available to measure the content of some solvents in the air. Workmen and foremen must be certain that measurements of this type are being made when men are working in an enclosed area.
- Approved chemical cartridge vapor masks (respirator masks) may be used to protect against low concentrations of solvent vapor (below 200 PPM). At higher vapor concentrations, this type of mask will not provide adequate protection. Cartridges must be replaced on a regular basis to remain effective.

Note: Proper selection of respirators shall be made according to the guidance of American National Standard Practices for Respiratory Protection Z88.2-1992.

- An approved fresh air supplied respirator with approved source of respirable air must be used for protection when solvent vapor concentrations are high (above 200 PPM). The use of fresh air supplied respirators does not reduce the necessity for good ventilation to lessen fire hazards and ensure proper drying of coatings.
- Air quality: Compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration shall be of high purity. Oxygen shall meet the requirements of the United States Pharmacopeia for medical or breathing oxygen. Breathing air shall meet at least the requirements of the specification for Grade D breathing air as described in Compressed Gas Association Commodity Specification G-7.1-1966. Compressed oxygen shall not be used in supplied-air respirators or in open circuit self-contained breathing apparatus that have previously used compressed air. Oxygen must never be used with air line respirators.
- Breathing air may be supplied to respirators from cylinders or air compressors:
 - **Cylinders** shall be tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 178).
 - **Compressors** for supplying air shall be equipped with necessary safety and standby devices. A breathing air-type compressor shall be used. Compressors shall be constructed and situated so as to avoid entry of contaminated air into the system and suitable in-line air purifying sorbent beds and filters installed to further assure breathing air quality. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of compressor failure, and alarms to indicate compressor failure and overheating shall be installed in the system. If an oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm, or both. If only a high-temperature alarm is used the air from the compressor shall be frequently tested for carbon monoxide to ensure that it meets the specifications noted in air quality above. Air line couplings shall be incompatible with outlets for other gas systems to prevent inadvertent servicing of air line respirators with non respirable gases or oxygen.
- Any time a workman begins to feel discomfort or irritation to the eyes, nose or throat the concentration of solvent vapor is too high for steady exposure. If a person feels light headed, giddy, dizzy or exhilarated the solvent vapor concentration is also too high and must be reduced by better ventilation. Any persons so affected must go to an area of fresh air.
- The effectiveness of ventilation depends on the physical barriers which restrict air flow. Open exterior areas on decks ventilate normally by natural air movement. Confined areas in rooms, some pit or ponded areas, as well as decks surrounded by walls or high parapets require forced air ventilation.
- Most people do not find solvent vapors irritating to the skin, even in high concentrations. Contact with liquid solvent has a drying effect on the skin; however, most individuals find no lasting effects. Special hand creams can be used to protect persons who handle NEOGARD® solvents or coatings frequently.

- Protect the sensitive areas of the face, armpits and groin from contact with solvent. These areas can suffer an astringent burn and should be washed with soap and water immediately if exposed to liquid solvents.
- Some individuals have a very low resistance to irritants. Should a person develop respiratory problems or skin rash, have him or her consult a physician. Particularly sensitive individuals may have to be assigned to work free of exposure to solvents or, in some cases, certain chemicals.
- Should solvent or solvented coatings be splashed in the eye, flush immediately with water; then consult a physician.

Other Health Considerations

- Footwear must be safety shoes with steel toe protection. 55 gallon drums of coating are very heavy and can cause considerable damage if set on an unprotected foot. The sole should be of a soft, resilient material to give best traction without damaging coated areas.
- Use extreme caution when working on sloped areas. Use lifelines. Wet coatings are very slippery.
- When working in bright sun with light color coating, wear dark glasses to prevent glare blindness.

Property Precautions

- Consider possible damage to property. Overspray can ruin finishes on vehicles and other surfaces (brick, paint, plastic, etc.). Solvent vapors in confined areas can damage plants and pets, including tropical fish and birds. Foods, even those stored in freezers, can pick up a solvent taste and should be protected from vapors.

Storage

- All material should be stored in a cool shaded place, preferably at a temperature of 75°F (23°C). Higher storage temperature for extended periods can cause thickening and even gelation of elastomeric coatings.
- Whenever work is stopped for the day, all coatings and thinner should be stored in tightly sealed factory containers to prevent evaporation and fire hazard. Materials left on unsupervised job sites may attract the curious or the malicious. Protect your materials properly and avoid potential harm to others.
- Do not keep open containers in confined places.
- Protect emulsion coatings (water borne) from freezing.

Volatile Organic Compounds (VOCs) and Health

Worker Safety and Public Health

- VOCs as solvents in paint coatings are regulated by EPA because of their public health hazard. VOCs are one class of chemicals which when released into the air will begin chemical reactions in the atmosphere that result in smog, which is a health hazard to people, especially the young, old, and those with respiratory problems. Some solvents are legally not VOCs, but still hazardous.
- VOCs as solvents in paint coatings are regulated by OSHA because of the occupational exposure hazards to workers in the industries of construction, shipbuilding, and general trades.
- Besides VOCs, there are often other hazardous ingredients in paint coatings that may be regulated by OSHA. These ingredients include heavy metals in paint pigments, isocyanates in urethane paint binders, and several other chemical ingredients.

Zero VOC versus VOC Compliant

- Under the EPA's Clean Air Act regulations, use of low-VOC paint coatings — typically where VOCs are less than 2.1 pounds per gallon (lbs/gal) of paint — is one of the best ways to reduce hazardous air pollutants (actual VOC restrictions vary by area and coating type). Alternative coatings are now available that are essentially “Zero VOCs.” These include waterborne coatings (80% water) and powder coatings (100% solids). These alternative coatings eliminate the VOC problem and are “EPA-friendly,” but they have their own disadvantages in application limitations, unproven performance, and they can still contain chemical ingredients that may be hazardous to workers and are regulated by OSHA.

VOCs and Odor

- Most, if not all, VOCs have some odor, and some are “better smelling” than others. Some VOC-exempt solvents have odor. Certain binders and pigments in some paints can also have odors. However, the amount or type of odor is not the best measure of the health hazard or toxicity from breathing a certain chemical or compound. Odors are subjective to different people, and some chemicals can saturate the nose, thereby reducing the apparent smell.
- Comparing odors and toxicity is like comparing apples and oranges. The best way to measure the toxicity of a chemical is by laboratory testing, usually with animal exposures. The best way to measure a person’s exposure to a chemical is by using air sampling and laboratory analysis. When this air sampling is for a worker in an occupational setting, this becomes part of the OSHA-recognized practice of industrial hygiene.
- Odor cannot be ignored, as it is often the most difficult issue that a building owner or employer using chemicals has to deal with, regardless of whether they are toxic. In some cases, a so-called “VOC-free” paint coating can be more odorous than a “low-odor” coating that contains small amounts of VOCs. The mere perception of irritating odors is enough to warrant an owner to consider sacrifices in cost and product performance just to buy some “peace of mind” and reduce the risk of complaints or lawsuits from the building occupants and neighbors. On the other hand, some product specifiers may insist on “VOC-free” coatings, whereas the “low-odor” coating with small amounts of VOCs would perform better as a coating and may even have a less irritating odor than the “VOC-free” coating.

When and What Air Testing Is Needed For Coating Applications?

- Air testing is driven by the owner’s concerns and the employer’s responsibilities. Relatively few chemicals and substances are used in paint coatings for which OSHA requires the employer to collect air samples during the paint application. An example of where OSHA sampling is required is when coatings contain the heavy metals of lead or chromium.
- If conditions of the application are extreme—such as a confined area with no ventilation—it’s best to take extra measures to reduce exposures (e.g., safer paints, added ventilation, and respirators) for workers. Air sampling can verify the adequacy of these control measures. The owner often requires air sampling to address concerns that nearby occupied areas are not being contaminated by the coating application. VOCs are often the target of air sampling, but some other constituents of coatings are hazardous and should have their exposures evaluated.
- An industrial hygienist typically makes a judgement on what and when to air sample, considering all of the above factors and issues. The hygienist first identifies the paint coating ingredients as listed on the manufacturer’s Safety Data Sheet (SDS). This document lists hazardous ingredients, known hazards and health effects, and known exposure limits, as established by OSHA or recommended by a professional body, such as the American Conference of Government Industrial Hygienists (ACGIH).
- The above information is based on standard industrial practices and is meant to outline the hazards, but is not necessarily all inclusive. Local conditions on specific jobs may indicate other precautions. Common sense and care in evaluating the possibility of hazards is essential.
- Nothing contained herein should supersede local laws, codes, ordinances or regulations, or the instructions of other manufacturers for the use of their products.

The standards and regulations published by the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, where applicable, should be consulted for further detail and compliance.



Glossary

1K & 2K: 1K is a term used to describe a coating that has only one component and does not require a hardener, catalyst or activator. 2K describes a coating that has two components in that the resin side needs to be mixed with a hardener, catalyst or activator.

Accelerator: A chemical typically mixed in small quantities with coating that increases the speed of the chemical reaction thereby hastening the curing of the coating system.

Additive: Product added to coating during mixing that enhances physical or chemical properties.

Activator: The curing agent / hardener of a two component coating system.

Adhesion: The degree of attachment between a coating film and the underlying substrate. There are several test methods to measure the amount of adhesion.

Aggregate: Hard material typically comprised of stone, sand, glass or synthetic material that is added to a coating system to provide build and skid resistance to the final system.

Aliphatic Coating: Type of hydrocarbon that displays aliphatic straight chains or branches as part of its chemistry. Aliphatic polyurethanes have certain improvements in characteristics over aromatics, such as less chalking effect and better color retention, but typically require longer cure times.

Ambient Temperature: Room temperature or the existing temperature of the surrounding air.

Aromatic Coating: Type of hydrocarbon that displays an aromatic (benzene) ring as part of its chemistry. Aromatic polyurethanes are commonly used in moisture cured coating systems.

Base Coat: The first layer of coating applied to the primed surface of a coating system. The Base Coat typically provides the waterproofing capability of a liquid applied coating system.

Below Grade: Part of the structure below ground level. Usually these areas have to be designed to resist the passage of water under hydrostatic head pressure.

Bird Bath: The National Roofing Contractors Association (NRCA) defines a bird bath as random, inconsequential amounts of residual water on a roof membrane.

Blast Cleaning: The cleaning and roughing of a surface by the use of sand, artificial grit, or fine metal shot which is projected at a surface by compressed air or mechanical means.

Boxing: The process of combining all the coating you will be using as the topcoat into one large container. This is especially important when coating a large surface area or if there is insufficient coating from a single batch, where a color variation from one batch to another is likely.

Broadcasting: Evenly distributing over an area (ie. to evenly broadcast aggregate).

Broom Finish: A finishing profile of concrete in which concrete surface is given a final textured finish by dragging a stiff bristled broom over it as it starts to cure.

CA Formulated Coating: Coatings that NEOGARD® has formulated to meet the VOC content

requirements for coatings established by South Coast Air Quality Management District (SCAQMD), the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernadino counties.

Catalyst: An accelerator, activator, or curing agent which chemically increases the rate of reaction in a coating.

CSP (Concrete Surface Profile): CSP is a measurement of roughness of the surface of concrete as determined by set guidelines provided by ICRI (International Concrete Repair Institute). CSP's measure from smooth/flat (CSP 1) to very rough (CSP 9).

Cure: The process of development of fluid applied coatings through the stages of polymerisation. In the application of NEOGARD® coating systems we describe four phases: initial cure, tack-free, traffic cured and fully cured.

Degreaser: A chemical solution or compound designed to remove grease, oil, and similar contaminants.

Dew Point: The temperature of air at which condensation of moisture will occur.

DFT (Dry Film Thickness): Thickness of coating measured in Mills after coating has fully cured and thus taken its solid form. DFT is always equal to or less than WFT depending on the percent of solids contained within the coating.

Direct Bond: NEOGARD® roof coating systems designed to be applied directly to existing non-ballasted single-ply membranes, granulated cap sheet, modified bitumen, concrete, metal and smooth surface BUR roof substrates.

Elastomeric: Products that are "elastic" in nature and are capable of withstanding significant movement as seen in some building structures.

Etching: The treatment of the surface of concrete with an acid in order to dissolve loose particles and laitance and/or provide a profile.

Expansive Concrete: Concrete designed to offset the effects of curing shrinkage.

Film: A monolithic layer of coating.

Film Build: The dry film thickness of a coat.

Flash Point: The flash point of a material is the lowest temperature at which it can vaporize to form an ignitable mixture in the air.

Fully Cured: Describes the fluid applied coatings cure phase at which materials have reached the physical properties required to withstand the traffic, use, and exposures for which they are designed.

Granule: A mineral which may be granite or sand used on the top of some coatings for ultraviolet protection, and fire protection.

Grout Coat: The first coat of epoxy over a trowelled flooring system, designed to lock in or seal the epoxy mortar.

Hardener: A chemical co-reactant that activates and/or accelerates the curing of a product to produce a coating film.

High Build : A term referring to a coating that can produce a thick film in a single coat.

Initial Cure: Describes the fluid applied coating cure phase during which the material is progressing from a liquid or gel to tack free.

Jiffy Mixer: A cylindrical mixing tool used for mixing coatings that does an excellent job of preventing air entrapment. It is manufactured exclusively by the Jiffy Mixer Company.

Laitance: An accumulation of fine particles, loosely bonded, on the surface of fresh concrete, caused by upward migration of moisture through the concrete.

Liquid Applied Membrane: A seamless coating system applied to a substrate that protects the substrate from the environment and/or traffic.

MEK (Methyl Ethyl Ketone): A commonly used solvent which has good solubility for most urethanes and some other coatings.

Mesh (Sieve Size): The size of a particle or aggregate reported in fraction of inch. A number 12 sieve is 1/12th of an inch; a number 60 sieve is 1/60th of an inch.

Mil: A Mil is one thousand of an inch (0.001"). It is a unit typically used in the measurement of coating thickness with the help of a Mil Gauge.

Mil Gauge: A device used to measure the thickness of coating while in a liquid state.

Mortar: A heavy application of coating (50 to 250 Mil thick) typically involving use of aggregate either mixed or broadcast. Mortars can be of three types:

- **Broadcast:** Neat resin over the substrate and where the aggregate is broadcast into the resin while it is still wet.
- **Slurry:** Very fine aggregate (consistency of flour) is mixed into the resin to create a self leveling consistency.
- **Trowel:** A blend of medium to fine aggregates is mixed into the resin to create a paste consistency that can be troweled.

Muriatic Acid: Hydrochloric acid often diluted with water and used for etching concrete.

NRCA: National Roofing Contractors Association.

Odor Mask: Chemical with pleasant / non offensive odor which is mixed into coating to mask the coating's odor.

On-Grade: Part of the structure at ground level.

pH: A measure of acidity and alkalinity; pH 1–7 is acid and pH 7–14 is alkali.

Ponding Water: NEOGARD® defines roofing ponding as "water that remains on a roof surface longer than 48 hours after the termination of the most recent rain event.

Porcupine Roller: Spine quill appearing roller that releases bubbles trapped in the more viscous coatings.

Pot Life: The length of time a coating material is useful after its original package is opened or a catalyst or other curing agent is added. At the end of the pot life the product's viscosity increases so much to make it difficult/impractical to apply.

Primer: The first coat applied to a surface, formulated to have good bonding, wetting and inhibiting properties. Primers act as a bond between the substrate and coating system.

Relative Humidity: The ratio, expressed as a percent, of the quantity of water vapor actually present in the air to the greatest amount possible at a given temperature.

Resin: A class of organic substances used in the making of coating products. Resins are often mixed with smaller quantities of a hardener/activator/catalyst to initiate or speed up the curing process.

Respirator: An apparatus worn over the mouth and nose or the entire face to prevent the inhalation of dust, smoke, or other noxious substances. For coatings products, the Material Safety Data Sheet will outline the need for using a respirator when applying the product.

Safety Data Sheet (SDS): Document available for each product that is intended to provide workers and emergency personnel with procedures for working with and handling that substance in a safe manner.

Seal Coat: The first coating application over a broadcasted flooring system or the final coats over a trowelled flooring system.

Seed and Backroll: A type of coating application method where aggregate is dispersed onto the coating surface and then worked in using a roller. System is then allowed to dry.

Seed and Lock: A type of coating application method where aggregate is dispersed onto the coating surface and allowed to dry. At this point, excess aggregate is blown off the surface and the remaining aggregate is “locked” into the system using additional coating.

Shelf Life: The maximum time interval in which a material may be kept in a usable condition during ideal storage.

Shot-blasting: Abrasive blasting with round iron shot, or any material which retains its spherical shape, for substrate roughening purposes.

Solids By Volume: The percentage of the total volume of substance occupied by nonvolatile compounds.

Solids by Weight: The percentage of the total weight of substance occupied by nonvolatile compounds.

Solvent: A liquid in which another substance may be dissolved, forming a solution.

Spalling: Type of concrete surface erosion in which inverted cones of concrete break away from main body and thereby reveal exposed aggregate.

SPF: Spray Polyurethane Foam, defined by the Spray Polyurethane Foam Alliance is a spray-applied insulating foam plastic that is installed as a liquid and then expands many times its original size.

Spray: A common application method in which a person pressurizes the liquid and releases the liquid through an orifice onto the substrate. Alternate application methods are by using a roller or trowel.

Square: A measurement used frequently in roofing, equal to 100 square feet.

Squeegee: A flat rubber blade typically used to distribute coating evenly on the substrate surface. Squeegees may be flat or notched depending on the type of work being done.

SRI: Solar Reflectivity Index is defined by the U.S. Green Building Council as “a measure of the constructed surface’s ability to stay cool in the sun by reflecting solar radiation and emitting thermal radiation.”

Tack Free: Describes the fluid applied coating cure phase during which the material is progressed beyond initial cure but has not yet reached the cured phase. Tack free material will not displace, print, track, or damage when touched or walked on while continuing the system application, while remaining soft enough to coat without requiring additional surface preparation or priming.

Thinning Agent: A liquid (solvent) added to a coating to improve its viscosity and thus make it easier to apply. Common thinning agents include MEK (Methyl Ethyl Ketone), Xylene and Mineral Spirits.

Topcoat: The final layer/layers of coating applied to a liquid applied coating system. Topcoats typically seal in the system and may provide resistance to wear, UV, chemicals, and traffic.

Traffic Cured: Describes the fluid applied coatings cured phase at which the material has progressed

beyond tack free but not yet reached fully cured. The cured material has reached the physical properties required to withstand the various traffic loads progressing from durable to: foot traffic first, light vehicular traffic next, and finally, heavy load traffic.

UV (Ultraviolet) Light: Type of radiation present in sunlight that may have a detrimental effect on some types of coatings causing discoloration/fading and in some cases, premature wearing of the coating system.

Vapor Barrier: A layer which retards the passage of water vapor into a material.

Vapor Drive: The pressure exerted on the underside of a coating system from moisture/water vapor which has migrated through the substrate.

Vapor Transmission Rate: The rate at which moisture passes through a material like concrete or coating system.

Viscosity: A measure of fluidity of a liquid. Easily flowing liquids are low in viscosity and slow flowing liquids are high in viscosity.

VOC (Volatile Organic Compounds): Organic compounds that evaporate from the coating as it cures.

Waterproofing: The use of coating systems for the resistance of the passage of water.

Wear/Intermediate Coat: A layer of coating applied in between the Base Coat and Topcoat of a liquid applied coatings system. Wear/Intermediate coats typically provide build and wear resistance for the coating system.

WFT (Wet Film Thickness): Thickness of coating measured in Mils typically right after the application of the coating product while coating is still in its liquid form.

Xylene Thinner: A common solvent used to dilute certain epoxies and urethanes and also to clean equipment.

Application Manual

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