



# DUPONT™ TYVEK® COMMERCIALWRAP® AND COMMERCIALWRAP® D SUBMITTAL PACKAGE FOR ARCHITECTS AND SPECIFIERS

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## RELATED INFORMATION

- [PDF](#) Adhesion Performance Reference Sheet
- [PDF](#) Chemical Compatibility of Representative Building Sealants
- [PDF](#) Building Science Bulletin: *DuPont™ Tyvek® Commercial Air Barrier Assemblies Exceed ABAA, ASHRAE 90.1 and IECC Air Leakage When Tested in Accordance with ASTM E2357*



## DUPONT™ TYVEK® COMMERCIALWRAP® AND COMMERCIALWRAP® D SUBMITTAL PACKAGE FOR ARCHITECTS AND SPECIFIERS

### INSTALLATION GUIDELINES

- WEB** [Installation Guide for Mechanically Fastened Air and Water Barriers \(For buildings greater than 4 stories and high performance installations of any height\)](#)
- WEB** [Installation Guidelines DuPont Self-Adhered Flashing Systems \(For buildings greater than 4 stories and high performance installations of any height\)](#)

### SUSTAINABILITY

#### HEALTH PRODUCT DECLARATIONS (HPD)

- PDF** [DuPont™ Tyvek® Wrap](#)
- PDF** [DuPont™ StraightFlash™](#)
- PDF** [DuPont™ FlexWrap™ NF](#)
- PDF** [DuPont™ Flashing Tape](#)
- PDF** [DuPont™ Tyvek® Wrap Caps](#)
- PDF** [DuPont™ Tyvek® Tape](#)

# DUPONT™ TYVEK® COMMERCIALWRAP®

A DURABLE, HIGH PERFORMANCE WEATHER BARRIER ENGINEERED SPECIFICALLY FOR COMMERCIAL CONSTRUCTION



## DESCRIPTION

Engineered to provide excellent performance as an air and water barrier, Tyvek® CommercialWrap® delivers the added strength and durability needed in commercial construction. As a part of DuPont™ Tyvek® Commercial Air and Water Barrier Systems, Tyvek® CommercialWrap® can easily be integrated with other system components to provide superior air and water hold-out with high tear-resistance, high wind-load resistance and 9-month UV resistance. It provides the best balance of air and moisture management resulting in more durable and energy efficient structures.

Tyvek® CommercialWrap® is backed by a 10-year limited warranty and industry-leading technical support.

## TYPICAL PROPERTIES (APRIL, 2015)

Please contact your local DuPont™ Tyvek® Specialist before writing specifications around this product. Product properties are as follows.

## PRODUCT INFORMATION—FEATURES/BENEFITS

### Air and Water Barrier Performance

- Offers the ideal combination of air and water holdout plus vapor permeability.
- Air Barrier Association of America evaluated to exceed ABAA, ASHRAE 90.1 and IECC air leakage requirements when tested in accordance with ASTM E2357.

### Ease of Installation

- Easily installed, prior to the building's exterior facade, to help protect against air and water infiltration.

### High Performance Durability

- Offers high tear-resistance and high wind-load-resistance to help stand up to commercial construction site conditions.
- Withstands up to nine months of UV exposure.

### Sustainable Solutions

- DuPont™ Tyvek® CommercialWrap® may contribute toward LEED® points in the areas of Energy and Atmosphere (EA): Optimizing the Building Envelope and Indoor Environmental Air Quality (EQ): Construction IAQ Management Plan and Low Emitting Materials. In addition, the use of a continuous air barrier is a prerequisite for LEED® applications requiring compliance with ASHRAE 90.1-2010.
- By helping to effectively seal the building envelope, Tyvek® CommercialWrap® helps to reduce the amount of energy required for heating and cooling

### Complete System

Tyvek® CommercialWrap® can be integrated with DuPont self-adhered flashing products and Tyvek® Fluid Applied products to offer seamless protection for wall systems that require mechanically fastened and fluid applied air and water barriers.

Test Method	Property	Unit	Value
ASTM E2357	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	<0.01
Gurley Hill (TAPPI T-460)	Air Penetration Resistance	sec/100cc	>1500
ASTM E1677	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	Type 1
ASTM E2178	Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	.001
ASTM E283	Wall Assembly Air Penetration Resistance	cfm/ft <sup>2</sup> @ 1.57 psf	<0.01
ASTM E96-00	Water Vapor Transmission	Method A g/m <sup>2</sup> -24 hrs	163
ASTM E96-00	Water Vapor Transmission	Method A (perms)	23
ASTM E96-00	Water Vapor Transmission	Method B g/m <sup>2</sup> -24 hrs	200
ASTM E96-00	Water Vapor Transmission	Method B (perms)	28
AATCC 127	Water Penetration Resistance	cm	280
ASTM E331	Wall Assembly Water Penetration Resistance	Tested to 15 psf	No leakage
TAPPI T-410	Basis Weight	oz/yd <sup>2</sup>	2.7
ASTM D882	Breaking Strength	lbs/in	38/35
ASTM D1117	Tear Resistance	lbs	12/10
ASTM E84	Surface Burning Characteristics	Flame Spread Index Class	10 Class A
ASTM E84	Surface Burning Characteristics	Smoke Developed Index Class	10 Class A
NFPA 285	Flame Propagation/Multiple Assemblies	—	Pass
	Ultra Violet Light Exposure (UV)	Days Months	270 9

Test results shown represent roll averages. Individual results may vary either above or below averages due to normal manufacturing variations, while continuing to meet product specifications



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# DUPONT™ TYVEK® COMMERCIALWRAP®

A DURABLE, HIGH PERFORMANCE WEATHER BARRIER ENGINEERED SPECIFICALLY FOR COMMERCIAL CONSTRUCTION

## PRODUCT DESCRIPTION

Tyvek® CommercialWrap® is made from 100% flash spunbonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance.

## INSTALLATION/USE INSTRUCTIONS

Please refer to DuPont Installation Guidelines for complete instructions.

## Safety Precautions for Use

Tyvek® CommercialWrap® is slippery and should not be used in any application where it will be walked on. In addition, DuPont recommends using kick jacks, scaffolding, or lifts for exterior work above the first floor. If ladders must be used, extra caution must be taken to use them safely by following the requirements set forth in ANSI Standards 14.1, 14.2, and 14.5 for ladders made of wood, aluminum, and fiberglass, respectively.

Tyvek® CommercialWrap® is combustible and should be protected from flames and other high heat sources. Tyvek® CommercialWrap® will melt at 275°F (135°C) and if the temperature of the product reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-800-44-Tyvek.

## Preparation

No surface preparation is needed for the installation of Tyvek® CommercialWrap®.

## TESTING/CODE COMPLIANCE

### Moisture Protection – Weather-Resistant Barriers

The 2012 International Building Code (IBC, Section 1403.2 Weather Protection) requires that exterior walls shall provide the building with a weather-resistant *exterior wall envelope*. This shall include flashing, as described in Section 1405.4. Tyvek® CommercialWrap® and where applicable, DuPont self-adhered flashing and accessory products, have been tested and meet weather-resistant barrier codes and standards requirements. The following test methodologies were used:

- ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Pressure
- ASTM E2556 Standard Specification for Vapor Permeable Flexible Sheet Water-resistive Barriers intended for mechanical attachment
- ASTM E96-00 Standard Test Methods for Water Vapor Transmission of Materials; Water resistive barriers are typically vapor permeable, which is generally desirable because it allows for drying of incidental moisture intrusion into the wall assembly
- AATCC 127 Hydrostatic Head Test for water-resistant barrier materials, measuring pressure to failure or time of failure at a given pressure

### Air Leakage Control — Air Barriers

ASHRAE 90.1 2010 (American Society of Heating, Refrigerating and Air-Conditioning Engineers) requires that the entire building envelope shall be designed and constructed with a *continuous air barrier*. This is a mandatory provision for the building envelope. IECC 2012 (International Energy Conservation Code) for commercial buildings also requires a *continuous air barrier*. These codes are being adopted in many states across the United States. Tyvek® CommercialWrap and where applicable, DuPont self-adhered flashing and accessory products have been tested and meet air barrier codes and standards requirements. The following test methodologies were used:

- ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- ASTM E1677 Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
- ASTM E2178 Standard Test Method for Air Permeance of Building Materials
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

## Other

- ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

Tyvek® CommercialWrap®, in conjunction with DuPont self-adhered flashing and accessory products, have been evaluated according to Air Barrier Association of America (ABAA) protocol and are listed at the ABAA website under “ABAA evaluated Air Barrier Assemblies”, [www.airbarrier.org](http://www.airbarrier.org)

## NOTICE

Tyvek® CommercialWrap® should be covered with the facade within nine months to limit UV exposure. Follow facade manufacturer’s installation and maintenance requirements in order to maintain water holdout.

## MATERIAL STORAGE/DISPOSAL

Tyvek® CommercialWrap® should be stored in a clean, dry environment.

## PACKAGING

Tyvek® CommercialWrap® is available the following roll sizes:

- 5' x 200' (1.5 x 61m)
- 10' x 125' (3.1 x 38.1 m)

## WARRANTY

Backed by a limited product warranty, see [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).



# DUPONT™ TYVEK® COMMERCIALWRAP® D

A DURABLE, HIGH PERFORMANCE, MECHANICALLY FASTENED AIR AND WATER BARRIER ENGINEERED TO IMPROVE DRAINAGE AND TO STAND UP TO THE COMMERCIAL JOB SITE



## DESCRIPTION

Tyvek® CommercialWrap® D offers superior drainage and durability for commercial buildings. It features a specially engineered surface texture that provides enhanced water drainage under a wide variety of facades in climates that may require additional drainage.

As a part of DuPont™ Tyvek® Commercial Air and Water Barrier Systems, Tyvek® CommercialWrap® D can easily be integrated with other system components to provide superior air and water hold-out with high tear-resistance, high wind-load-resistance and 9-month UV resistance. Tyvek® CommercialWrap® D is backed by a 10-year limited warranty and industry-leading technical support.

## TYPICAL PROPERTIES (APRIL, 2015)

Please contact your local DuPont™ Tyvek® Specialist before writing specifications around this product. Product properties are as follows:

### PRODUCT INFORMATION—FEATURES/BENEFITS

#### Air and Water Barrier Performance

- Offers the ideal combination of enhanced drainage, air and water holdout plus vapor permeability.
- Air Barrier Association of America evaluated to exceed ABAA, ASHRAE 90.1 and IECC air leakage requirements when tested in accordance with ASTM E2357

#### Ease of Installation

- Easily installed, prior to the building's exterior facade, to help protect against air and water infiltration.

#### High Performance Durability

- Offers high tear-resistance and high wind-load-resistance to help stand up to commercial construction site conditions.
- Withstands up to nine months of UV exposure.

#### Sustainable Solutions

- DuPont™ Tyvek® CommercialWrap® D may contribute toward LEED® points in the areas of Energy and Atmosphere (EA): Optimizing the Building Envelope and Indoor Environmental Air Quality (EQ): Construction IAQ Management Plan and Low Emitting Materials. In addition, the use of a continuous air barrier is a prerequisite for LEED® applications requiring compliance with ASHRAE 90.1-2010.
- By helping to effectively seal the building envelope, Tyvek® CommercialWrap® D helps to reduce the amount of energy required for heating and cooling

#### Complete System

Tyvek® CommercialWrap® D can be integrated with DuPont self-adhered flashing products and Tyvek® Fluid Applied products to offer seamless protection for wall systems that require mechanically fastened and fluid applied air and water barriers.

Test Method	Property	Unit	Value
ASTM E2357	Air Penetration Resistance	cfm/ft² @ 1.57 psf	<0.04
Gurley Hill (TAPPI T-460)	Air Penetration Resistance	sec/100cc	>750
ASTM E1677	Air Penetration Resistance	cfm/ft² @ 1.57 psf	Type 1
ASTM E2178	Air Penetration Resistance	cfm/ft² @ 1.57 psf	.001
ASTM E283	Wall Assembly Air Penetration Resistance	cfm/ft² @ 1.57 psf	<0.04
ASTM E96-05	Water Vapor Transmission	Method B g/m²·24 hrs	212
ASTM E96-05	Water Vapor Transmission	Method B (perms)	30
AATCC 127	Water Penetration Resistance	cm	235
ASTM E331	Wall Assembly Water Penetration Resistance	Tested to 15 psf	No leakage
TAPPI T-410	Basis Weight	oz/yd²	2.4
ASTM D882	Breaking Strength	lbs/in	33/41
ASTM D1117	Tear Resistance	lbs	6/9
ASTM E84	Surface Burning Characteristics	Flame Spread Index Class	15 Class A
ASTM E84	Surface Burning Characteristics	Smoke Developed Index Class	25 Class A
NFPA 285	Flame Propagation/Multiple Assemblies	—	Pass
	Ultra Violet Light Exposure (UV)	Days Months	270 9

Test results shown represent roll averages. Individual results may vary either above or below averages due to normal manufacturing variations, while continuing to meet product specifications.





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# DUPONT™ TYVEK® COMMERCIALWRAP® D

## A DURABLE WEATHER BARRIER ENGINEERED FOR ENHANCED DRAINAGE

### PRODUCT DESCRIPTION

Tyvek® CommercialWrap® D is made from 100% flash spunbonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance.

### INSTALLATION/USE INSTRUCTIONS

Please refer to DuPont Installation Guidelines for complete instructions.

### Safety Precautions for Use

Tyvek® CommercialWrap® D is slippery and should not be used in any application where it will be walked on. In addition, DuPont recommends using kick jacks, scaffolding, or lifts for exterior work above the first floor. If ladders must be used, extra caution must be taken to use them safely by following the requirements set forth in ANSI Standards 14.1, 14.2, and 14.5 for ladders made of wood, aluminum, and fiberglass, respectively.

Tyvek® CommercialWrap® D is combustible and should be protected from flames and other high heat sources. Tyvek® CommercialWrap® D will melt at 275°F (135°C) and if the temperature of the product reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-800-44-Tyvek.

### Preparation

No surface preparation is needed for the installation of Tyvek® CommercialWrap® D.

### TESTING/CODE COMPLIANCE

#### Moisture Protection – Weather-Resistant Barriers

The 2012 International Building Code (IBC, Section 1403.2 Weather Protection) requires that exterior walls shall provide the building with a weather-resistant *exterior wall envelope*. This shall include flashing, as described in Section 1405.4. Tyvek® CommercialWrap® D and where applicable, DuPont self-adhered flashing and accessory products, have been tested and meet weather-resistant barrier codes and standards requirements. The following test methodologies were used:

- ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Pressure
- ASTM E2556 Standard Specification for Vapor Permeable Flexible Sheet Water-resistive Barriers intended for mechanical attachment
- ASTM E96-00 Standard Test Methods for Water Vapor Transmission of Materials; Water resistive barriers are typically vapor permeable, which is generally desirable because it allows for drying of incidental moisture intrusion into the wall assembly
- AATCC 127 Hydrostatic Head Test for water-resistant barrier materials, measuring pressure to failure or time of failure at a given pressure

#### Air Leakage Control — Air Barriers

ASHRAE 90.1 2010 (American Society of Heating, Refrigerating and Air-Conditioning Engineers) requires that the entire building envelope shall be designed and constructed with a *continuous air barrier*. This is a mandatory provision for the building envelope. IECC 2012 (International Energy Conservation Code) for commercial buildings also requires a *continuous air barrier*. These codes are being adopted in many states across the United States. Tyvek® CommercialWrap D and where applicable, DuPont self-adhered flashing and accessory products have been tested and meet air barrier codes and standards requirements. The following test methodologies were used:

- ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- ASTM E1677 Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
- ASTM E2178 Standard Test Method for Air Permeance of Building Materials
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

### Other

- ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

Tyvek® CommercialWrap® D, in conjunction with DuPont self-adhered flashing and accessory products, have been evaluated according to Air Barrier Association of America (ABAA) protocol and are listed at the ABAA website under “ABAA evaluated Air Barrier Assemblies”, [www.airbarrier.org](http://www.airbarrier.org)

### NOTICE

Tyvek® CommercialWrap® D should be covered with the facade within nine months to limit UV exposure. Follow facade manufacturer’s installation and maintenance requirements in order to maintain water holdout.

### MATERIAL STORAGE/DISPOSAL

Tyvek® CommercialWrap® D should be stored in a clean, dry environment.

### PACKAGING

Tyvek® CommercialWrap® D is available the following roll sizes:

- 5' x 200' (1.5 x 61m)
- 10' x 125' (3.1 x 38.1m)

### WARRANTY

Backed by a limited product warranty, see [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).



# DuPont Flashing Systems

## PHYSICAL PROPERTIES DATA SHEET

### Product Data

PROPERTIES	DUPONT™ FLEXWRAP™ NF	DUPONT™ FLASHING TAPE
Face Sheet	Micro-creped, polyethylene laminate (white)	Polypropylene film
Adhesive*	Butyl Rubber (black)	Butyl Rubber (black)
Thickness	64 mil (1,620 microns)	20 mil (507 microns)
Release Liner	1-piece, heavy-duty siliconized paper for 6-inch width product; 2-piece, heavy-duty siliconized paper for 9-inch width product	1-piece heavy-duty siliconized paper
Dimensions	6- or 9-inch width x 75 feet length	4, 6, or 9-inch width x 75 feet
Applications	Round top or custom shaped windows, 3-D sill protection, wall interruptions: i.e. dryer vents, hose bibs. Suitable for use on substrates where fasteners cannot be applied.	Jamb and heads of rectangular windows and doors.
UV Resistance	Cover in 270 days	Cover in 120 days

PROPERTIES	DUPONT™ STRAIGHTFLASH™	DUPONT™ STRAIGHTFLASH™ VF
Face Sheet	Spunbonded polyethylene laminate (white)	Spunbonded polyethylene laminate (white)
Adhesive*	Butyl rubber (black)	Transposed dual sided adhesive for continuous integration; Butyl rubber (black)
Thickness	30 mil (760 microns)	30 mil (760 microns)
Release Liner	2-piece, heavy-duty siliconized, scored release paper	2-piece, heavy-duty siliconized, scored release paper
Dimensions	4-inch width x 150 feet length 9-inch width x 125 feet length	6-inch width x 125 feet length
Applications	Jamb and heads of rectangular windows.	Brick mold, non-integral flanged and non-flanged rectangular windows and doors.
UV Resistance	Cover in 270 days	Cover in 270 days

\* Adhesive system is based on 100% butyl elastomer with no asphalt/modified bitumen components.

### Performance Testing

INSTALLED SYSTEM WATER INTRUSION TESTING (Tested with no exterior cladding)	
ASTM E-331	NO leakage at 300 Pa
ASTM E-331 after thermal aging (0-120°F)	NO leakage at 300 Pa
WATER VAPOR PERMEABILITY (ASTM E-96)	
	< 1 perm (< 60 ng/Pa.sec.m <sup>2</sup> )
APPLICATION TEMPERATURE	
	Best when installed above 25°F (consult DuPont for primer recommendations)
DUPONT FLASHING SYSTEMS PRODUCTS MEET THE	
AAMA 711-13 MATERIAL STANDARD AT THE HIGHEST CLASSIFICATION LEVELS:	Class A (no primer) Level 3 Thermal Exposure (80°C/176°F for 7 days)

For more information about DuPont Flashing Systems, please visit us at [www.Construction.Tyvek.com](http://www.Construction.Tyvek.com) or call 1-800-44-Tyvek

**WARNING:** DuPont Flashing Systems products and their release paper are slippery and should not be walked on. Remove release paper from work area immediately.

DuPont Flashing Systems products are combustible and should be protected from flame and other high heat sources. If the temperature of DuPont Flashing Systems products reach 700°F (307°C) they will burn and the fire may spread and fall away from the point of ignition.



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DuPont  
**Flashing Systems**



Tyvek.

# DUPONT™ TYVEK® COMMERCIAL WRAP CAPS

THE WRAP CAP SCREW FOR COMMERCIAL STEEL STUD APPLICATIONS



**Why use a DuPont™ Tyvek® Commercial Wrap Cap with a screw? Quality contractors and installers have been asking for an easy way to secure Tyvek® products to steel studs. They also asked for increased holding power. We designed the DuPont™ Tyvek® Commercial Wrap Cap Screw as the solution for quality commercial and steel stud installations.**

## GENERAL DESCRIPTION AND APPLICATION

- A full drill point screw with an attached 2" plastic cap for use in steel stud applications (12 gauge to 20 gauge)
- Recommended for fastening any Tyvek® product—ideal for commercial applications
- Wrap Cap Screws with a 2" plastic disc reduce the potential for jobsite blow-off of wrap—delivering increased fastener holding power over traditional 1" plastic and metal caps

## PRODUCT SPECIFICATIONS

Product	Type	Screw Length	Box Count	Box OD (lwd)	Weight Each
2" Dia. Wrap Cap Screws	Hand Drive or Electric Drive	1 3/4"	1000	12"x 12" x 14"	14.5 lb

## FEATURES AND BENEFITS

### 1 3/4" Steel Stud Screw

- Can be applied by hand or drill
- Self-tapping drill point screw, #8 shank with a modified truss head style (Phillips head)
- Screws are coated with an organic fluoropolymer for improved rust protection
- Drill bit included in each box, for ease of installation
- Screws are ore-attached to Wrap Caps for quick installation

### 2" Wrap Cap

- Constructed of high-density polyethylene with UV inhibitors
- Large diameter cap increases fastener holding power—reducing the potential for job-site blow-off of wrap
- Large plastic cap provides additional protection around fastener penetrations
- Large diameter cap permits easy handling and installation

## PRODUCT GUARANTEE

DuPont will replace any Tyvek® product damaged during installation by weather or normal handling if it is installed according to procedures published by DuPont. If you have any questions, call DuPont Tyvek® at 1-800-44-TYVEK®



**For more information visit us at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com) or call 1-800-44-Tyvek**



# DuPont™ Adhesive/Primer

## PHYSICAL PROPERTIES DATA SHEET AND APPLICATION INSTRUCTIONS

### RESIDENTIAL & COMMERCIAL ADHESIVE

#### UNCURED PROPERTIES

Color	Off-White
Appearance	Liquid
Application Temperature	0° F: sprayable up to 30 minutes 10° F: sprayable up to 60 minutes 15° F: sprayable up to 2 hours 25°F: sprayable up to 2 hours 32°F and above: sprayable 24 hours+
Tack-Free Time	5 minutes at 25° F 1 minute at 70° F 1 minute at 180° F
Base	Synthetic Rubber
Specific Gravity	0.84
VOC Content	55% by weight
Shelf Life	12 months (unopened)
Lot Code Explanation	YYDDD YY = Year of manufacture DDD = Day of manufacture based on 365 days in a year example: 13 025 = 25th day of 2013 = January 25, 2013

#### CURED PROPERTIES

Color	Off-White
Specifications	ASTM D 3330 Method F Testing Passed at 0, 25, 72, 180 degrees. Substrates - CMU, Exterior Gypsum, OSB, Aluminum, Vinyl  AAMA 711 Section 5.8 - Water Immersion and Peel Strength (straight flash on aluminum) UV Exposure: >5 lb/in Elevated Temperature Exposure, 122°F: > 5 lb/in Thermal Cycling Exposure: > 5 lb/in After Water Immersion: 2.3 lb/in  AAMA 713 - Chemical Compatibility: Pass ASTM E84 - Flame Spread Index = 5; Smoke Development index = 0



## DuPont™ Adhesive/Primer Application Instructions

### Features:

- A: Water and heat resistant • Cold weather application • Dries clear and will not yellow with age • Easy to use, no-mess spray nozzle • Can apply multiple coats • Does not bubble

### Uses:

- B: Strengthens the adhesive bond at low temperature applications between self-adhered DuPont™ Flashing Products and common building sheathing materials, as well as Commercial and Residential WRB's

### Safety Precautions:

- C: Use in well-ventilated area. Always wear safety glasses and wash hands after use.

### Preparation:

No Tools Required

D: Shake can well before using, 10 - 12 times.

E: Surfaces must be clean and free of foreign materials. Protect finished surfaces.

F: Pre-fit all materials. Testing of substrates for compatibility is recommended. Opportunity to reposition is minimal.

G: Cold Temperature Application: DuPont Adhesive/Primer can be applied at temperatures as low as 0°F (18°C). For optimal performance product should be kept above 56°F prior to application. Usage time is up to 30 minutes at 0°F, 60 minutes at 10°F, 2 hours at 15°F, 2 hours at 25°F and 24 hours + at 32°F or above. Once time frame is reached, product should be brought above 56°F before further use.

### Application:

H: Turn spray tip so the black dot is aligned with the nozzle. Hold can in an upright vertical position to the surface. Point valve towards surface and spray the surface evenly from a distance of 8" to 10" (20 to 25 cm). Do not concentrate spray and allow adhesive to build up on surface. Do not apply adhesive with can upside down.

I: Start and stop the spray just off the work surface to prevent runs and sags. Apply an even coat to both surfaces to be bonded and allow to dry 2 to 5 minutes between coats. Apply maximum pressure over entire surface.

J: Adhesive loses tack after approximately 10 minutes. Recoat if time exceeded. Porous surfaces will require more than one coat.

### Clean-up:

K: After use, invert spray can and spray for approximately 2 seconds (or until spray is free of adhesive) to clear valve and spray tip. Clean spray tip with Turpentine or mineral spirits. Note: when using solvents for cleanup, use proper precautionary measures.

### Storage and Disposal:

L: For maximum performance and shelf life, the spray adhesive can should be stored between 56°F (13°C) and 95°F (35°C) and away from direct sunlight. Do not store at temperatures above 120°F (50°C).

M: Use an approved hazardous waste facility for disposal.

### Warnings:

N: DANGER! Extremely flammable. Contains Hydrocarbon Propellants, Acetone, Cyclohexane, Methyl Acetate and Solvent Naphtha. Do not use near heat, sparks, open flame or sources of static discharge. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F (50°C). Store away from direct sunlight. Use in a well-ventilated area. Avoid breathing spray, mist or vapor. Avoid contact with eyes and skin. Over exposure to vapors may cause irritation of the nose, throat and cause symptoms of intoxication such as dizziness, nausea, headache or indigestion.

### First Aid:

O: If swallowed, do not induce vomiting; call physician immediately. In case of eye contact, flush with water for at least 15 minutes and get medical attention. For skin contact wash thoroughly with soap and water. Get medical attention if irritation persists. If inhaled, remove to fresh air. NOTICE: Intentional misuse by deliberately inhaling contents may be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information about DuPont™ Tyvek® Weatherization System products, please call 1-800-44-Tyvek or visit us at [www.Construction.Tyvek.com](http://www.Construction.Tyvek.com)

For technical information call 1-800-624-7767

For medical emergencies call 1-877-671-4608





# DuPont Weatherization Products 10-Year Limited Warranty

## FOR BUILDINGS GREATER THAN 4 STORIES

DuPont provides the following warranty to **Builders, General Contractors or Professional Installers** upon the terms and conditions set forth herein.

Because DuPont recognizes the volatility of our economic times, should the Builder, General Contractor or Professional Installer to whom this warranty is given, cease to be in business, this warranty coverage will extend to the original registered owner of the building at the time of installation. This warranty is not transferrable except as set forth herein.

This **10 Year Limited Warranty** is effective for DuPont™ Weatherization Products (“Products”) identified below and purchased and installed after October 1st, 2009 in Canada and the United States.

This warranty applies to all building structures that are **GREATER THAN 4 STORIES** in height.

If any Products are repaired or replaced under this warranty, then ongoing warranty coverage will continue from the original date of purchase and not from the date of repair or replacement.

### **PRODUCT ONLY LIMITED WARRANTY**

Subject to Product label warnings and the following Product specific terms and conditions set forth below, DuPont warrants that for a period of 10 years from date of purchase, Products, to the extent identified below, will meet or exceed the water holdout performance properties (pursuant to the Hydrostatic Head, AATCC 127 test) in the applicable Product specific Physical Property Data Sheet in effect at the time of installation. If the Product fails to meet those water holdout properties, then DuPont sole liability will be to provide replacement Product for that portion of defective Product. All product replacement will be in the form of Product being manufactured at the time of replacement. No substitutions of other products or those manufactured by other manufacturers will be permitted.

### **PRODUCT AND LABOR LIMITED WARRANTY**

Subject to the following Product specific terms and conditions, DuPont warrants that for a period of 10 years from the date of purchase, Products, identified below, when installed in strict accordance with the applicable DuPont Installation Guidelines, in a properly constructed and designed wall system, following the applicable building codes and accepted industry standards for each type of structure, will:

- for DuPont™ Tyvek® Wrap Products listed below, meet or exceed the water and air holdout performance properties pursuant to the Hydrostatic Head test (AATCC 127) for water holdout and pursuant to the Gurley Hill (TAPPI T-460) test for air holdout, and
- for DuPont™ Flashing Products, listed below, meet the water holdout performance properties pursuant to the Hydrostatic Head test (AATCC 127 ); in each applicable Physical Property Data Sheet in effect at the time of installation.

To qualify for this Product and Labor Warranty, you must exclusively use Products to the extent applicable on each type of construction, subject to the Product Specific Conditions set forth below. You **MUST** use the Project Registration and Observation process prior to installation on all Multi-Family, Mixed Use, Light and Heavy Commercial projects to qualify under the Product and Labor Warranty. For Project Registration details, please see [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com) or call 1-800-44-Tyvek **BEFORE** you commence installation.

When all conditions under this Product and Labor Warranty are met, if damage to the building is caused solely by the failure of any Product to meet the water and air holdout specification in the applicable Physical Property Data Sheet, then DuPont will provide replacement Product for all defective Product and pay all reasonable construction repair costs to correct any problem that arises solely out of the failure of the DuPont Products to conform to its Physical Property Data Sheet. DuPont will not have any liability under this warranty for the repair or cost of repair for more than the actual area of damage.

## **PRODUCTS COVERED AND PRODUCT SPECIFIC CONDITIONS:**

DuPont™ Tyvek® HomeWrap®, StuccoWrap®, DrainWrap™ and ThermaWrap™

- Use of these products in any structure greater in height than 4 stories will qualify only for the Product Warranty.

DuPont™ Tyvek® Commercial Wrap Products, including CommercialWrap® and Commercial Wrap® D

- Must use three (3) inch DuPont™ Tyvek® Tape with all Wrap Products to qualify under the Product and Labor Warranty.

**Subject to the foregoing conditions and providing all applicable DuPont Wrap Products are used exclusively (no substitution of alternate or competitive product), the Product and Labor Warranty will apply even where DuPont™ Flashing Products have not been used. This warranty will not cover any alternate flashing products or damages arising therefrom.**

DuPont™ Flashing Products, including StraightFlash™, StraightFlash™ VF, FlexWrap™, FlexWrap™ NF, and Thru-Wall Flashing

- In order for Flashing Products to qualify under the Product and Labor Warranty, all other applicable DuPont Products, including Wrap Products must be used. Flashing Products used alone will only have a Product Warranty.
- Substitution of any other building envelope, flashing or tape products when there is an applicable Product available from DuPont will void this Product and Labor Warranty. (This restriction does not apply to DuPont™ Thru-Wall Flashing which does not need to be used as part of the entire flashing installation to qualify for the Product and Labor Warranty.)

## **What is not covered by these Warranties:**

1. The negligence, gross negligence, or willful misconduct of the Builder, General Contractor or Professional Installer or of any third party, including the building owner.
2. Any application in which DuPont™ Tyvek® Wrap Products come into contact with DuPont™ Tyvek® Fluid Applied Products.
3. Acts of God, including but not limited to, fire and lightning, hurricane, high winds.
4. Vandalism or attack by any party.
5. Defects in the structure or a component of the structure (e.g., window, door, or wall system) or selection of any components of the structure, contamination from building site chemicals, or premature deterioration of the building materials, or nonstandard use or application of the Products.
6. Foreign objects or agents, including the use of materials incompatible with DuPont™ Tyvek®.
7. UV exposure of the Products in excess of that set forth in the Physical Properties Data Sheet.
8. Improper installation of the Products, improper building practices or design not in accordance with the applicable building code or industry standards, or any deviation from approved construction plans or project specifications, or failure to follow the applicable DuPont Installation Guidelines or façade manufacturer requirements. Installation Guidelines are available by calling 1-800-44-Tyvek and online at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).
9. Any defect arising out of the performance of any non-DuPont building envelope products.
10. Any structure less than 5 stories in height.

## **How Can you Get Warranty Service:**

To obtain service under this warranty, you must promptly contact DuPont at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com) or call 1-800-44-Tyvek regarding any potential claim, no later than sixty (60) days after you discover any potential claim, and you MUST provide DuPont with proof of purchase and/or of installation of the Products within the 10 Year warranty period. You must provide DuPont with a reasonable opportunity to inspect the building within sixty (60) days after DuPont receives notice of your potential claim. You must also provide access to DuPont to recovery of samples of the DuPont Products from the actual installation in sufficient quantities in order to perform testing to determine whether or not the DuPont Product failed as set forth herein. If obtaining the required samples proves not to be feasible, then, in the alternative, DuPont may use retainer samples for DuPont Products manufactured from the same lot as those used in the actual installation.

**Exclusion of Damages:**

DUPONT SOLE LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE COST OR REPLACEMENT, AS APPLICABLE, OF THE PRODUCT AND, IF APPLICABLE, THE LABOR REQUIRED TO CORRECT PROBLEMS CAUSED SOLELY BY THE FAILURE OF THE PRODUCTS TO MEET THE APPLICABLE PHYSICAL PROPERTIES DATA SHEET AND THE TERMS OF THIS DUPONT WARRANTY. DUPONT SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOST PROFITS, LOST REVENUE, LOSS OF USE OR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, REPRESENTATION OR CONDITION.

FOR ANY BUILDING/STRUCTURE GREATER THAN 4 STORIES, DUPONT LIABILITY UNDER THE PRODUCT AND LABOR WARRANTY SHALL, NOTWITHSTANDING ANYTHING ELSE CONTAINED HEREIN, BE EXPRESSLY LIMITED TO THE LESSER OF TEN (\$10.00) DOLLARS A SQUARE FOOT OF EXTERIOR WALL SPACE OF THE ACTUAL AREA OF DAMAGE AND A PROJECT LIMIT OF FIVE HUNDRED THOUSAND (\$500,000.) DOLLARS.

The foregoing is the only Warranty made by DuPont for structures and buildings greater than 4 stories in height. No representative, dealer or any other person is authorized to make or makes any warranty, representation, condition or promise on behalf of DuPont with respect to such Products. No terms or conditions other than those stated herein or provided by law, and no agreement or understanding, oral or written, in any way purporting to modify this warranty shall be binding upon DuPont unless made in writing and signed by an authorized employee of DuPont.

**THIS WARRANTY IS NOT A PERFORMANCE CLAIM.**

For more information about this warranty, please contact your local DuPont™ Tyvek® Specialist or call DuPont directly at 1-800-44-Tyvek.





# DUPONT WEATHERIZATION PRODUCTS 10-YEAR LIMITED WARRANTY

**FOR BUILDINGS LESS THAN 5 STORIES AND LOW-RISE MULTI-FAMILY RESIDENTIAL  
BUILDINGS LESS THAN 6 STORIES**

DuPont provides the following warranty to *Builders, General Contractors or Professional Installers* upon the terms and conditions set forth herein.

Because DuPont recognizes the volatility of our economic times, should the Builder, General Contractor or Professional Installer to whom this warranty is given, cease to be in business, this warranty coverage will extend to the original registered owner of the building at the time of installation. This warranty is not transferrable except as set forth herein.

This **10 Year Limited Warranty** is effective for DuPont Weatherization Products (“Products”) identified below and purchased and installed after **April 1st, 2013** in Canada and the United States (US).

This warranty applies to all building structures that are **less than five (5) stories in height in the US and Canada. In the US only, this also applies to “Low-Rise Multi-Family Residential Buildings” which is defined as an entire building structure that meets ALL of the following conditions:**

- (i) **Less than six (6) stories in height and less than sixty (60) feet in height from Grade Plane (IBC Section 202);**
- (ii) **Residential-Use (Group R) building structure (IBC Section 310);**
- (iii) **Constructed of wood-based structural exterior framing and sheathing of Type V or Type III Construction (IBC Table 503), including allowances for Automatic Sprinkler height increase (IBC 504.2) and ‘podium’ structures outlined in the Special Provisions (IBC Section 510);**
- (iv) **Design requirements for building envelope do not exceed ASTM E1677;**
- (v) **NFPA 285 compliance is not required for any of the building’s wall assemblies.**

If any Products are repaired or replaced under this warranty, then ongoing warranty coverage will continue from the original date of purchase and not from the date of repair or replacement.

## PRODUCT ONLY LIMITED WARRANTY

Subject to Product label warnings and the following Product specific terms and conditions set forth below, DuPont warrants that for a period of 10 years from date of purchase, Products, to the extent identified below, will meet or exceed the water holdout performance properties (pursuant to the Hydrostatic Head AATCC 127 test) in the applicable Product specific Physical Property Data Sheet in effect at the time of installation. If the Product fails to meet those water holdout properties, then DuPont sole liability will be to provide replacement Product for that portion of defective Product. All product replacement will be in the form of Product being manufactured at the time of replacement. No substitutions of other products or those manufactured by other manufacturers will be permitted.

## PRODUCT AND LABOR LIMITED WARRANTY

Subject to the following Product specific terms and conditions, DuPont warrants that for a period of 10 years from the date of purchase, Products, identified below, when installed in strict accordance with the applicable DuPont Installation Guidelines, in a properly constructed and designed wall system, following the applicable building codes and accepted industry standards for each type of structure, will:

- for DuPont™ Tyvek® Wrap Products listed below meet or exceed the water and air holdout performance properties pursuant to the Hydrostatic Head test (AATCC 127) for water holdout and pursuant to the Gurley Hill (TAPPI T-460) test for air holdout, and
- for DuPont™ Flashing Products, listed below meet the water holdout performance properties pursuant to the Hydrostatic Head test (AATCC 127); in each applicable Physical Property Data Sheet in effect at the time of installation.

To qualify for this Product and Labor Warranty, you must exclusively use Products to the extent applicable on each type of construction, subject to the Product Specific Conditions set forth below. You **MUST** use the Project Registration and Observation process prior to installation on all Multi-Family, Mixed Use and Light Commercial projects to qualify under the Product and Labor Warranty. For Project Registration details, please see [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com) or call 1-800-44-Tyvek **BEFORE** you commence installation.

When all conditions under this Product and Labor Warranty are met, if damage to the building is caused solely by the failure of any Product to meet the water and air holdout specification in the applicable Physical Property Data Sheet, then DuPont will provide replacement Product for all defective Product and pay all reasonable construction repair costs to correct any problem that arises solely out of the failure of the DuPont Products to conform to its Physical Property Data Sheet. DuPont will not have any liability under this warranty for the repair or cost of repair for more than the actual area of damage.

#### **PRODUCTS COVERED AND PRODUCT SPECIFIC CONDITIONS:**

DuPont™ Tyvek® Building Wrap Products, including HomeWrap®, StuccoWrap®, ThermaWrap™, DrainWrap™, CommercialWrap®, and Commercial Wrap® D

- Must use DuPont™ Tyvek® Tape with all Wrap Products as outlined in published installation guidelines to qualify under the Product and Labor Warranty.
- Must use DuPont™ Wrap Cap fasteners as outlined in published installation guidelines except when following the temporary fastening installation guideline.
- Substitution of any other building envelope or tape products when there is an applicable Product available will void this Product and Labor Warranty.

**Subject to the foregoing conditions and providing all applicable DuPont™ Tyvek® Building Wrap Products are used exclusively (no substitution of alternate or competitive product), the Product and Labor Warranty will apply even where DuPont™ Flashing Products have not been used. This warranty will not cover any alternate flashing products or damages arising therefrom.**

DuPont™ Flashing Products, including StraightFlash™, StraightFlash™ VE, StraightFlash™ OS, FlexWrap™, FlexWrap™ NF, FlexWrap™ RW, Flashing Tape, and Thru-Wall Flashing

- In order for Flashing Products to qualify under the Product and Labor Warranty, all other applicable DuPont Products, including Wrap Products, must be used. Flashing Products used alone will only have a Product Warranty.
- Substitution of any other building envelope, flashing or tape products when there is an applicable Product available from DuPont will void this Product and Labor Warranty.

#### **WHAT IS NOT COVERED BY THESE WARRANTIES:**

1. Any building structure that is greater than 4 stories in Canada.
2. Any building structure that is greater than 4 stories in the US, unless it is a “Low-Rise Multi-Family Residential Building” (as defined above).

3. The negligence, gross negligence, or willful misconduct of the Builder, General Contractor or Professional Installer or of any third party, including the building owner.
4. Any application in which DuPont™ Tyvek® Building Wrap Products come into contact with DuPont™ Tyvek® Fluid Applied Products.
5. Acts of God, including but not limited to, fire and lightning, hurricane, high winds.
6. Vandalism or attack by any party.
7. Defects in the structure or a component of the structure (e.g., window, door, or wall system) or selection of any components of the structure, contamination from building site chemicals, or premature deterioration of the building materials, or nonstandard use or application of the Products.
8. Foreign objects or agents, including the use of materials incompatible with DuPont Weatherization Products.
9. UV exposure of the Products in excess of that set forth in the Physical Properties Data Sheet.
10. Improper installation of the Products, improper building practices or design not in accordance with the applicable building code or industry standards, or any deviation from approved construction plans or project specifications, or failure to follow the applicable DuPont Installation Guidelines or façade manufacturer requirements. Installation Guidelines are available by calling 1-800-44-Tyvek and on line at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).
11. Any defect arising out of the performance of any non-DuPont building envelope products.
12. Any building structure that is greater than 4 stories in Canada.

#### **HOW CAN YOU GET WARRANTY SERVICE:**

To obtain service under this warranty, you must promptly contact DuPont at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com) or call 1-800-44-Tyvek regarding any potential claim, no later than sixty (60) days after you discover any potential claim, and you MUST provide DuPont with proof of purchase and/or of installation of the DuPont Products within the 10 Year warranty period. You must provide DuPont with a reasonable opportunity to inspect the building within sixty (60) days after DuPont receives notice of your potential claim. You must also provide access to DuPont to recovery of samples of the Products from the actual installation in sufficient quantities in order to perform testing to determine whether or not the DuPont Product failed as set forth herein. If obtaining the required samples proves not to be feasible, then, in the alternative, DuPont may use retainer samples for DuPont Products manufactured from the same lot as those used in the actual installation.



## **DUPONT WEATHERIZATION PRODUCTS 10-YEAR LIMITED WARRANTY FOR BUILDINGS LESS THAN 5 STORIES AND LOW-RISE MULTI-FAMILY RESIDENTIAL BUILDINGS LESS THAN 6 STORIES**

### **EXCLUSION OF DAMAGES:**

DUPONT SOLE LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE COST OR REPLACEMENT, AS APPLICABLE, OF THE PRODUCT AND, IF APPLICABLE, THE LABOR REQUIRED TO CORRECT PROBLEMS CAUSED SOLELY BY THE FAILURE OF THE PRODUCTS TO MEET THE APPLICABLE PHYSICAL PROPERTIES DATA SHEET AND THE TERMS OF THIS DUPONT WARRANTY. DUPONT SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOST PROFITS, LOST REVENUE, LOSS OF USE OR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, REPRESENTATION OR CONDITION.

FOR ANY NON-RESIDENTIAL BUILDING/STRUCTURE OR MIXED-USE BUILDING/STRUCTURE, DUPONT LIABILITY UNDER THE PRODUCT AND LABOR WARRANTY SHALL, NOTWITHSTANDING ANYTHING ELSE CONTAINED HEREIN, BE EXPRESSLY LIMITED TO THE LESSER OF TEN (\$10.00) DOLLARS A SQUARE FOOT OF EXTERIOR WALL SPACE OF THE ACTUAL AREA OF DAMAGE AND A PROJECT LIMIT OF FIVE HUNDRED THOUSAND DOLLARS (\$500,000).

**The foregoing is the only Warranty for the listed products made by DuPont for use on buildings or structures in the US or Canada.** No representative, dealer or any other person is authorized to make or makes any warranty, representation, condition or promise on behalf of DuPont with respect to such Products. No terms or conditions other than those stated herein or provided by law, and no agreement or understanding, oral or written, in any way purporting to modify this warranty shall be binding upon DuPont unless made in writing and signed by an authorized employee of DuPont.

**THIS WARRANTY IS NOT A PERFORMANCE CLAIM.**

Thursday, August 25, 2011

DuPont Building Innovations  
4417 Lancaster Pike  
Chestnut Run Plaza 721  
Wilmington, DE 19805

**ATTN: Maria Spinu**

**RE: Confirmation of Material Approval – Tyvek Commercial Wrap**

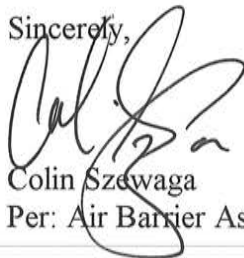
Dear Maria

This letter is to confirm that Dupont's Tyvek Commercial Wrap has gone through the ABAA Material Evaluation process and has been deemed an ABAA evaluated and listed material and air barrier assembly.

The listing for your product can be found on the ABAA website under the Air Barrier Materials section at [www.airbarrier.org/materials/index\\_e.php](http://www.airbarrier.org/materials/index_e.php), Air Barrier Assemblies at [http://www.airbarrier.org/materials/assemblies\\_e.php](http://www.airbarrier.org/materials/assemblies_e.php) and in the future Mechanically Attached Flexible Sheet specification.

Please contact me should you need additional information

Sincerely,



Colin Szewaga

Per: Air Barrier Association of America



Friday, September 23, 2011

DuPont Building Innovations  
4417 Lancaster Pike  
Chestnut Run Plaza 721  
Wilmington, DE 19805

**ATTN: Ms. Maria Spinu**

**RE: Confirmation of Material Approval – Tyvek Commercial Wrap D**

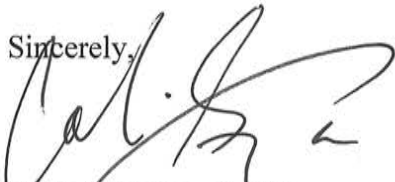
Dear Maria

This letter is to confirm that Dupont's Tyvek Commercial Wrap D has gone through the ABAA Material Evaluation process and has been deemed an ABAA evaluated and listed material and air barrier assembly.

The listing for your product can be found on the ABAA website under the Air Barrier Materials section at [www.airbarrier.org/materials/index\\_e.php](http://www.airbarrier.org/materials/index_e.php), Air Barrier Assemblies at [http://www.airbarrier.org/materials/assemblies\\_e.php](http://www.airbarrier.org/materials/assemblies_e.php) and in the future Mechanically Attached Flexible Sheet Master Specification.

Please contact me should you need additional information

Sincerely,



Colin Szewaga, C.E.T.  
Per: Air Barrier Association of America



## NFPA 285 COMPLIANT WALL ASSEMBLIES WITH DUPONT™ TYVEK® COMMERCIAL AIR AND WATER BARRIER SYSTEMS<sup>1</sup>

### I. BASE WALL SYSTEM

- 1 **Concrete Wall**
- 2 **Concrete Masonry Wall (CMU)**
- 3 **Standard Clay Brick Wall**
- 4 **Adobe Block Wall**
- 5 **Steel Stud Framed Wall:** minimum 20-gauge, 3-5/8" studs, with lateral bracing every 4 feet vertically (24" on center maximum)
  - a. Interior wallboard: minimum of 1 layer of 5/8" Type X gypsum wallboard on interior face of studs
  - b. Interior vapor barrier (optional): 1 mil thick polyethylene plastic or equivalent can be applied
  - c. Cavity insulation: None or any noncombustible insulation (faced or unfaced)
  - d. Floorline firestopping (where studs are outboard of the floor assembly): 4 lb./cu. ft. mineral wool (e.g. Thermafiber®) in each stud cavity and at each floorline – attached with Z-clips or equivalent
  - e. Exterior sheathing: 1/2" or 5/8" thick, exterior type gypsum sheathing

### II. AIR AND WATER BARRIER

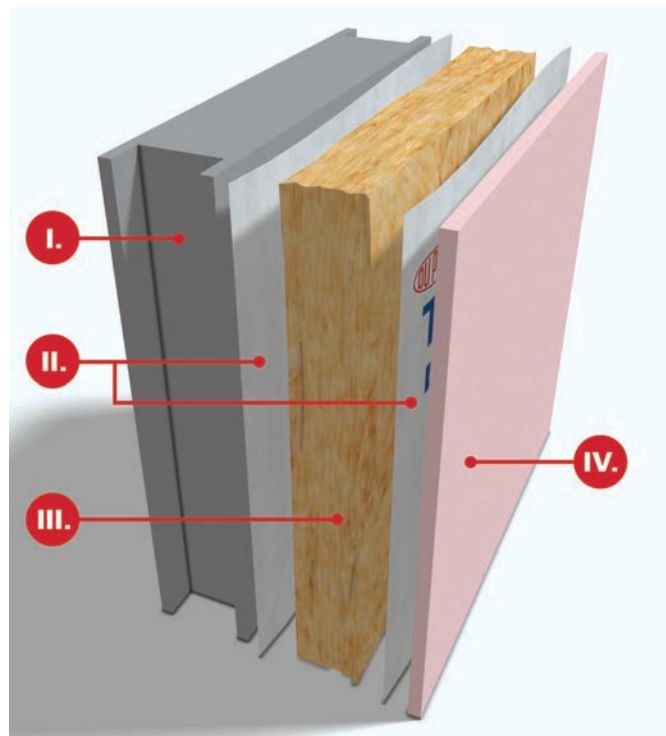
Applied to base wall OR over exterior insulation

- 1 **None**
- 2 **DuPont™ Tyvek® CommercialWrap®**
- 3 **DuPont™ Tyvek® CommercialWrap® D**
- 4 **DuPont™ Tyvek® ThermaWrap™**
- 5 **DuPont™ Tyvek® Fluid Applied Weather Barrier (WB):** Nominal 25 wet mil thickness. **NOT** to be applied OVER exterior insulation.

**NOTE:** Any air and water barrier to be installed in accordance with manufacturer installation instructions. Flash windows, doors and other exterior penetrations with asphalt, acrylic or butyl-based flashing tape with a maximum 12" width. Use primer when applicable, unless otherwise noted by flashing manufacturer.

### III. EXTERIOR INSULATION

- 1 **None**
- 2 **Any unfaced noncombustible insulation (fiberglass, mineral wool)**
- 3 **Dow Thermax™ Polyisocyanurate Rigid Insulation**  
Total thickness to be a minimum of 5/8" a maximum of 3"
- 4 **Extruded Polystyrene Foam Insulation (XPS) - Type IV per ASTM C578:** Total thickness to be a minimum of 1/2" to maximum of 3". On insulation joints, an asphalt or butyl-based flashing tape with a 4" maximum width can be used. Use any header treatment shown in NFPA 285 Window Head Detail Options, figures 1–6 for all window and door openings in the exterior wall.



### IV. EXTERIOR CLADDING

- 1 **Brick**  
Standard nominal 4" thick, clay brick. Use standard brick veneer anchors installed maximum 24" on center vertically on each stud with a 2" maximum air gap between exterior insulation and brick.
- 2 **Stucco**  
Minimum 3/4" thick, exterior cement plaster and lath. An optional secondary water-resistive barrier can be installed between the exterior insulation and the lath. The secondary water-resistive barrier shall not be full-coverage asphalt or butyl-based self-adhered membranes. (Cannot be combined with Exterior Insulation: #4-XPS)
- 3 **Stone Veneer**  
Minimum 2" thick, limestone or natural stone veneer or minimum 1-1/2" thick cast artificial stone veneer. Any standard installation technique can be used.
- 4 **Fiber Cement Siding or Panels**  
Any standard installation technique can be used. (Cannot be combined with Exterior Insulation: #4-XPS)
- 5 **Metal Exterior Wall Coverings**  
Including but not limited to steel, aluminum, and copper installed using standard installation techniques. (Cannot be combined with Exterior Insulation: #4-XPS)

## IV. EXTERIOR CLADDING (continued)

### 6 Terracotta Cladding

Use any terracotta cladding system in which terracotta is minimum 1-1/4" thick. Any standard installation technique can be used.

### 7 Metal Composite Material (ACM/MCM)

Use any ACM/MCM system that has been successfully tested by the panel manufacturer via NFPA 285 test method. (Cannot be combined with Exterior Insulation: #4-XPS)

### 8 High Pressure Laminate (HPL)

Use any HPL panel cladding system that has been successfully tested by the panel manufacturer via NFPA 285 test method. (Must be combined with Exterior Insulation: #2 Mineral Wool that meets ASTM C612 with minimum 2" thickness that is unfaced and mechanically attached.)

### 9 Concrete Masonry Units (CMU)

Minimum 4" thick CMU, with a 2" maximum air gap between exterior insulation and CMU.

### 10 Concrete Panels

Minimum 2" thick panel, with a 2" maximum air gap between exterior insulation and concrete panel.

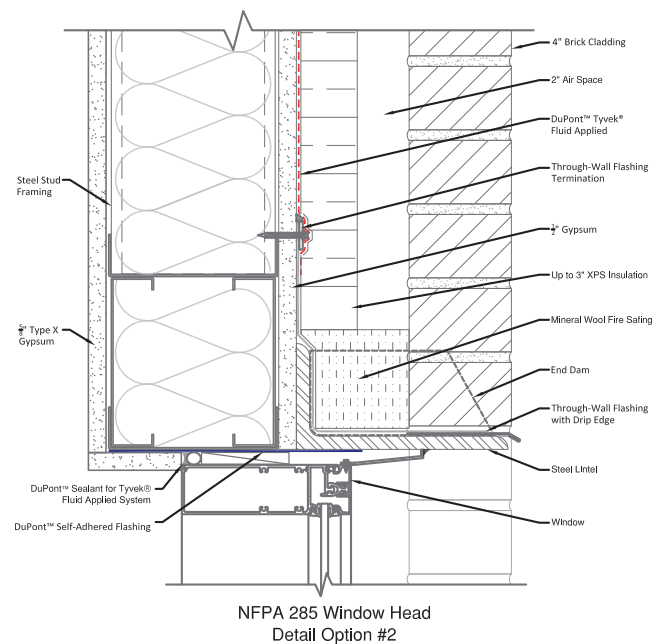
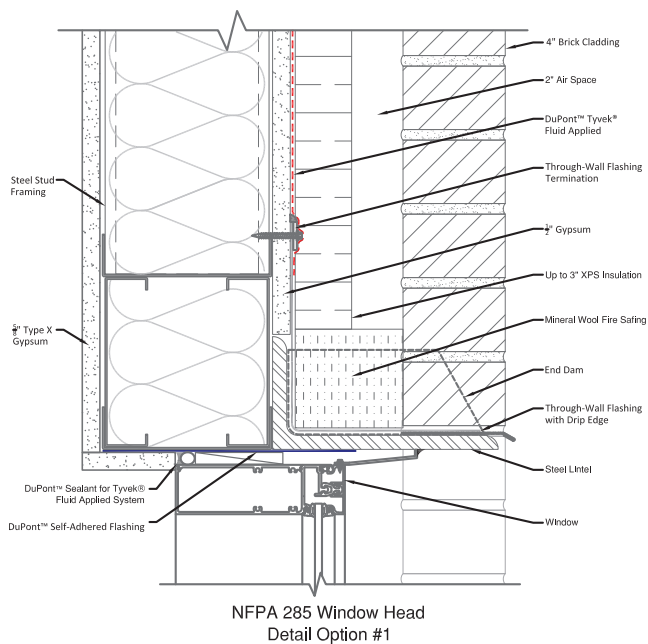
### 11 Insulated Concrete Sandwich Panels

Minimum 2" outer and inner faces. Maximum 2" air gap between panel and wall system.

**NOTE:** All exterior veneer/cladding systems must be installed in accordance with manufacture's installation instructions and with applicable building codes.

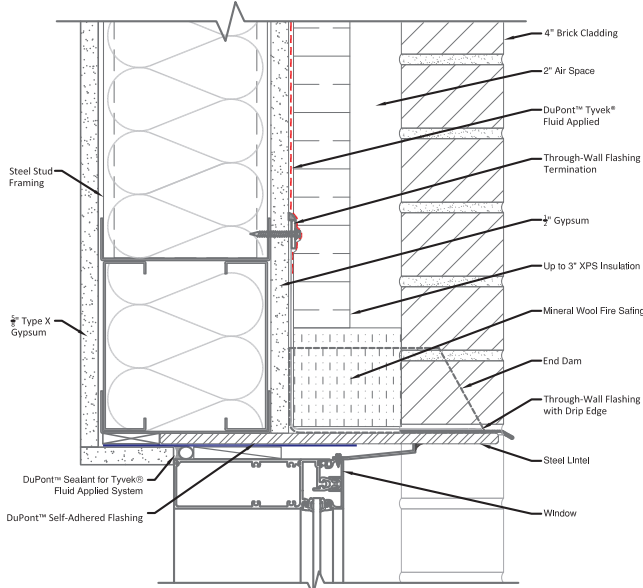
(1) DuPont - Various NFPA 285 Complying Exterior Wall Constructions Using DuPont™ Tyvek®, HAI Project No. 1JJB00088.000 Dated August 14, 2012, HAI Project No. 1JJB00088.000a Dated April 22, 2013, HAI Project No. 1JJB00088.000b Dated April 23, 2013, and HAI Project No. 1JJB00088.000c Dated April 22, 2013.

## XPS EXTERIOR INSULATION FIGURES 1–6 FOR ALL EXTERIOR WINDOW AND DOOR OPENINGS

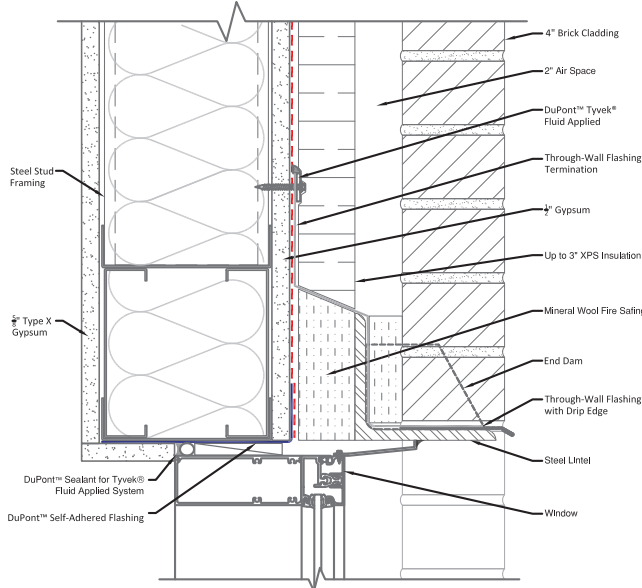




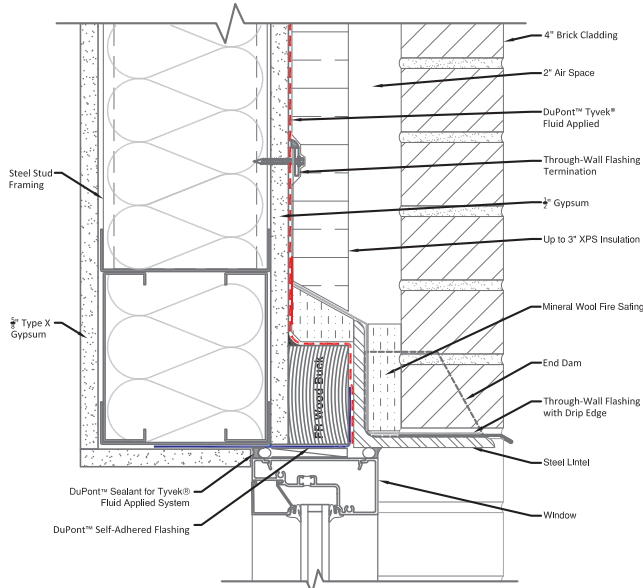
### XPS EXTERIOR INSULATION FIGURES 1-6 FOR ALL EXTERIOR WINDOW AND DOOR OPENINGS (continued)



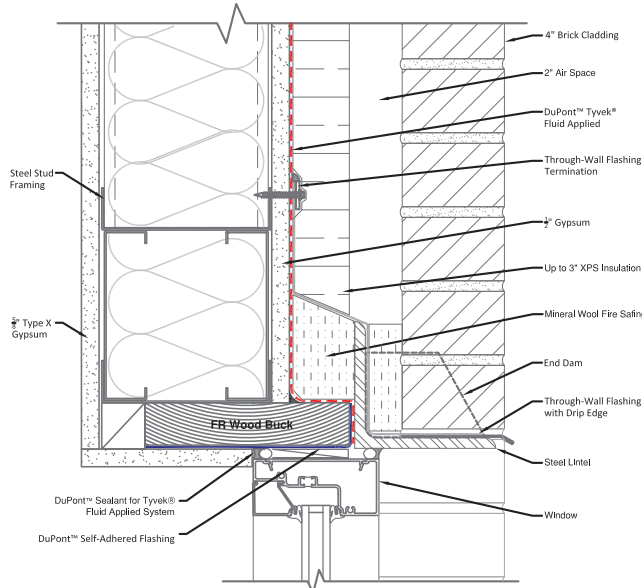
NFPA 285 Window Head  
Detail Option #3



NFPA 285 Window Head  
Detail Option #4



NFPA 285 Window Head  
Detail Option #5



NFPA 285 Window Head  
Detail Option #6



The Tyvek logo, consisting of the word "Tyvek" in a blue sans-serif font with a horizontal line above it.

## NFPA 285 COMPLIANT WALL ASSEMBLIES WITH DUPONT™ TYVEK® COMMERCIAL AIR AND WATER BARRIER SYSTEMS

For additional NFPA 285 compliant wall assemblies utilizing DuPont™ Tyvek® Commercial Air and Water Barrier products, referenced from other assembly component manufacturers, visit <http://buildinginnovations.us.dupont.com/code-updates> under the Evaluation Reports, Code Updates & MSDS section.

**For more information on DuPont™ Tyvek®  
Weatherization Systems,  
please call 1-800-44-TYVEK or  
visit [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com)**



# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
 \_\_\_\_\_  
 From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_  
 A/E Project Number: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
 Installer: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_

History:  New product  1-4 years old  5-10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
 \_\_\_\_\_

### Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
 Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
 \_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work:  No  Yes; explain \_\_\_\_\_  
 \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time:  No  Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_



# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase — Continued)

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The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
  - Same warranty will be furnished for proposed substitution as for specified product.
  - Same maintenance service and source of replacement parts, as applicable, is available.
  - Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
  - Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
  - Proposed substitution does not affect dimensions and functional clearances.
  - Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
  - Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.
- 

Submitted by: \_\_\_\_\_

Signed by: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments:

---

## A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

---

Additional Comments:     Contractor     Subcontractor     Supplier     Manufacturer     A/E  
 Other:

**DuPont™ Tyvek® Spunbond Polyethylene**

Version 2.4

Revision Date 01/21/2014

Ref. 150000002811

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name	:	DuPont™ Tyvek® Spunbond Polyethylene
Tradename/Synonym	:	formerly MSDS SP6013
MSDS Number	:	150000002811
Manufacturer	:	DuPont 1007 Market Street Wilmington, DE 19898
Product Information	:	+1-800-441-7515 (outside the U.S. +1-302-774-1000)
Medical Emergency	:	1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency	:	CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)
Other information	:	OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

This product has no known adverse effect on human health. Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. Dust may form explosive mixture in air.

**Potential Health Effects****Carcinogenicity**

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**



**DuPont™ Tyvek® Spunbond Polyethylene**

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Component	CAS-No.	Concentration
Nonwoven Fabric		100 %

Includes percentages of the following:

Polyethylene	9002-88-4	
Additives		

**SECTION 4. FIRST AID MEASURES**

General advice : No hazards which require special first aid measures.

**SECTION 5. FIREFIGHTING MEASURES**

Flammable Properties

Flash point : not applicable

Ignition temperature : 330 - 350 °C (626 - 662 °F)

Thermal decomposition : > 200 °C (> 392 °F)

Fire and Explosion Hazard : Burning is accompanied by melting and dripping which may cause the fire to spread.

Hazardous combustion products Carbon monoxide Carbon dioxide (CO<sub>2</sub>)

Firefighting Instructions : Wear self-contained breathing apparatus and protective suit.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



**DuPont™ Tyvek® Spunbond Polyethylene**

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup : not applicable

**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : Material can create slippery conditions. Take precautionary measures against static discharges. Minimize the generation and accumulation of dust.

Storage : No special storage conditions required.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Personal protective equipment  
 Respiratory protection : Respiratory protection should not be required for normal use and handling. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Exposure Guidelines  
 Exposure Limit Values

Polyethylene			
PEL:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
PEL:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
TLV	(ACGIH)	3 mg/m3	8 hr. TWA Respirable particles.
TLV	(ACGIH)	10 mg/m3	8 hr. TWA Inhalable particles.
AEL *	(DUPONT)	5 mg/m3	8 & 12 hr. TWA Respirable dust.

**DuPont™ Tyvek® Spunbond Polyethylene**

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AEL \* (DUPONT) 10 mg/m3 8 &amp; 12 hr. TWA Total dust

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form : sheets  
Color : white  
Odor : none  
Melting point/range : 135 °C (275 °F)  
Viscosity : no data available  
Viscosity, kinematic : no data available

**SECTION 10. STABILITY AND REACTIVITY**

Hazardous decomposition products : Carbon dioxide (CO<sub>2</sub>), Carbon monoxide

**SECTION 11. TOXICOLOGICAL INFORMATION**

Polyethylene

Oral LD50 : 7,950 mg/kg , rat

Skin irritation : non-irritant

Eye irritation : non-irritant

Skin sensitization : Not a skin sensitizer.

Further information : The substance is a polymer and is not expected to produce toxic effects.





**DuPont™ Tyvek® Spunbond Polyethylene**

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**SECTION 12. ECOLOGICAL INFORMATION**

Aquatic Toxicity  
Polyethylene

: The substance is a polymer and is not expected to produce toxic effects.

Additional ecological information : This product has no known ecotoxicological effects.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal : Where possible recycling is preferred to disposal or incineration.

**SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION**

SARA 313 Regulated Chemical(s) : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 : Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

**SECTION 16. OTHER INFORMATION**

Restrictions for use : Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and



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expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications and DuPont CAUTION Regarding Medical Applications.

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are trademarks of E. I. du Pont de Nemours and Company

Contact person : MSDS Coordinator, 1007 Market St. Wilmington, DE 19898, Phone: 302-999-6646(for MSDS information)/302-999-2778 (for technical information)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.



**DuPont™ Tyvek® StraightFlash™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000138728

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DuPont™ Tyvek® StraightFlash™  
MSDS Number : 130000138728

Manufacturer : DuPont  
Building Innovations  
1007 Market Street  
Wilmington, DE 19898

Product Information : 1-302-774-1000  
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

Other information : OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

**SECTION 2. HAZARDS IDENTIFICATION**

Emergency Overview  
This product has no known adverse effect on human health.

Potential Health Effects  
Carcinogenicity  
None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with



**DuPont™ Tyvek® StraightFlash™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000138728

product fabrication and/or installation are discussed in this datasheet.

**SECTION 4. FIRST AID MEASURES**

General advice : No hazards which require special first aid measures.

**SECTION 5. FIREFIGHTING MEASURES**

Fire and Explosion Hazard : Burning is accompanied by melting and dripping which may cause the fire to spread.

In fire conditions, toxic decomposition products may be formed. Hazardous combustion products may include: Carbon monoxide Carbon dioxide (CO2)

Firefighting Instructions : Wear self-contained breathing apparatus and protective suit.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup : Not applicable

**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : No special precautions required.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Personal protective equipment  
Respiratory protection : Respiratory protection should not be required for normal use and handling. When workers are facing concentrations above the exposure limit they must



**DuPont™ Tyvek® StraightFlash™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000138728

use appropriate certified respirators.

Exposure Guidelines  
Exposure Limit Values

Dust (total and inhalable dust)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form : Solid parts & shapes

**SECTION 10. STABILITY AND REACTIVITY**

Hazardous decomposition products : Decomposition does not occur under normal use conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

DuPont™ Tyvek® StraightFlash™  
Further information : This product has no known adverse effect on human health.

**SECTION 12. ECOLOGICAL INFORMATION**



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Additional ecological information : This product has no known ecotoxicological effects.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal : Where possible recycling is preferred to disposal or incineration.

**SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION**

**SECTION 16. OTHER INFORMATION**

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**DuPont™ Tyvek® Flexwrap™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000121391

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DuPont™ Tyvek® Flexwrap™  
MSDS Number : 130000121391

Manufacturer : DuPont  
Building Innovations  
1007 Market Street  
Wilmington, DE 19898

Product Information : 1-302-774-1000  
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

Other information : OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

**SECTION 2. HAZARDS IDENTIFICATION**

Emergency Overview  
This product has no known adverse effect on human health.

Potential Health Effects  
Carcinogenicity  
None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with





**DuPont™ Tyvek® Flexwrap™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000121391

product fabrication and/or installation are discussed in this datasheet.

**SECTION 4. FIRST AID MEASURES**

General advice : No hazards which require special first aid measures.

**SECTION 5. FIREFIGHTING MEASURES**

Fire and Explosion Hazard : Burning is accompanied by melting and dripping which may cause the fire to spread.

In fire conditions, toxic decomposition products may be formed. Hazardous combustion products may include: Carbon monoxide Carbon dioxide (CO2)

Firefighting Instructions : Wear self-contained breathing apparatus and protective suit.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup : Not applicable

**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : No special precautions required.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Personal protective equipment  
Respiratory protection : Respiratory protection should not be required for normal use and handling. When workers are facing concentrations above the exposure limit they must



**DuPont™ Tyvek® Flexwrap™**

Version 2.0

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Ref. 130000121391

use appropriate certified respirators.

Exposure Guidelines  
Exposure Limit Values

Dust (total and inhalable dust)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form : Solid parts & shapes

**SECTION 10. STABILITY AND REACTIVITY**

Hazardous decomposition products : Decomposition does not occur under normal use conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

DuPont™ Tyvek® Flexwrap™  
Further information : This product has no known adverse effect on human health.

**SECTION 12. ECOLOGICAL INFORMATION**



**DuPont™ Tyvek® Flexwrap™**

Version 2.0

Revision Date 09/11/2014

Ref. 130000121391

Additional ecological information : This product has no known ecotoxicological effects.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal : Where possible recycling is preferred to disposal or incineration.

**SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION**

**SECTION 16. OTHER INFORMATION**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.

# Material Safety Data Sheet



Revision Number: 000.2

Issue date: 05/04/2012

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** DuPont Adhesive/Primer  
**Product type:** Adhesive  
**IDH number:** EXP442652  
**Region:** United States  
**Company address:** Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067  
**Contact information:** Telephone: 800.624.7767  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887

## 2. HAZARDS IDENTIFICATION

EMERG		ENCY OVERVIEW	
<b>Physical state:</b>	liquid	<b>HEALTH:</b>	1
<b>Color:</b>	Off white	<b>FLAMMABILITY:</b>	4
<b>Odor:</b>	Solvent	<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	Not available.
<b>DANGER:</b>	EXTREMELY FLAMMABLE. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF INHALED. CONTENTS UNDER PRESSURE.		

**Relevant routes of exposure:** Skin, Inhalation, Eyes

### Potential Health Effects

**Inhalation:** May be harmful if inhaled.  
**Skin contact:** Prolonged and/or repeated skin contact may result in mild irritation or redness. Repeated or prolonged contact can result in drying of skin. Symptoms may include redness, burning, drying, cracking and skin burns.  
**Eye contact:** Symptoms can include irritation, redness, scratching of the cornea, and tearing. Mild eye irritation.  
**Ingestion:** May be harmful if swallowed. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

**Existing conditions aggravated by exposure:** Other pre-existing skin conditions.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Acetone	67-64-1	10 - 30
Methyl acetate	79-20-9	10 - 30
Solvent naphtha (petroleum), light aliphatic, low benzene content	64742-89-8	5 - 10
Cyclohexane	110-82-7	30 - 60
Propane	74-98-6	10 - 30

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. In case of adverse health effects seek medical advice.
<b>Skin contact:</b>	Wash affected area immediately with soap and water. If symptoms develop and persist, get medical attention. Remove contaminated clothes.
<b>Eye contact:</b>	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
<b>Ingestion:</b>	If material is ingested, immediately contact a physician or poison control center. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.
<b>Notes to physician:</b>	This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	Not available.
<b>Flashback:</b>	This product exhibits flashback when tested for flame extension.
<b>Autoignition temperature:</b>	Not available.
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Extinguishing media:</b>	Carbon dioxide. Alcohol-resistant foam Dry powder.
<b>Special firefighting procedures:</b>	Not available.
<b>Unusual fire or explosion hazards:</b>	Not available.
<b>Hazardous combustion products:</b>	Not available.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Not available.
<b>Clean-up methods:</b>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Follow all local, state, federal and provincial regulations for disposal.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Keep out of the reach of children. Keep in a cool, well ventilated area. Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains. Avoid skin and eye contact. Avoid breathing vapors or mists of this product. Do not puncture or incinerate pressurized containers.
<b>Storage:</b>	For safe storage, store at or below 48.8 °C (119.8 °F)

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Acetone	500 ppm TWA 750 ppm STEL	1,000 ppm (2,400 mg/m <sup>3</sup> ) TWA	None None	
Methyl acetate	200 ppm TWA 250 ppm STEL	200 ppm (610 mg/m <sup>3</sup> ) TWA	None None	
Solvent naphtha (petroleum), light aliphatic, low benzene content	None	None None None		
Cyclohexane	100 ppm TWA	300 ppm (1,050 mg/m <sup>3</sup> ) TWA	None None	
Propane 1,000	ppm TWA	1,000 ppm (1,800 mg/m <sup>3</sup> ) TWA	None None	

<b>Engineering controls:</b>	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
<b>Respiratory protection:</b>	Use a NIOSH approved respirator if ventilation is inadequate.
<b>Eye/face protection:</b>	Safety goggles or safety glasses with side shields.
<b>Skin protection:</b>	Use impermeable gloves and protective clothing as necessary to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	liquid
<b>Color:</b>	Off white
<b>Odor:</b>	Solvent
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	Not available.
<b>Boiling point/range:</b>	Not available.
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	0.8300 - 0.8400
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	Not available.
<b>Flashback:</b>	This product exhibits flashback when tested for flame extension.
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Evaporation rate:</b>	> 1 (Butyl acetate = 1)
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	54.80 %

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Not available.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Carbon dioxide. Carbon monoxide. Hydrocarbons.
<b>Incompatible materials:</b>	Strong oxidizing agents.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Acetone	No	No	No
Methyl acetate	No	No	No
Solvent naphtha (petroleum), light aliphatic, low benzene content	No	No	No
Cyclohexane	No	No	No
Propane	No	No	No

Hazardous components	Health Effects/Target Organs
Acetone	Blood, Central nervous system, Irritant, Reproductive
Methyl acetate	Blood, Central nervous system, Eyes, Irritant
Solvent naphtha (petroleum), light aliphatic, low benzene content	Irritant
Cyclohexane	Irritant, Central nervous system
Propane	Cardiac, Central nervous system, Irritant

## 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal.

**Hazardous waste number:** It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

The shipping classification in this section are for bulk packaging only. Shipping classification may be different for non-bulk packaging as exceptions may apply. Refer to shipping documents for package specific transportation classification.

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Aerosols  
**Hazard class or division:** 2.1  
**Identification number:** UN 1950  
**Packing group:** None  
**DOT Reportable quantity:** Cyclohexane, Acetone

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Aerosols, flammable  
**Hazard class or division:** 2.1  
**Identification number:** UN 1950  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** AEROSOLS (Cyclohexane)  
**Hazard class or division:** 2.1  
**Identification number:** UN 1950  
**Packing group:** None  
**Marine pollutant:** Cyclohexane



## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12(b) Export Notification:</b>	None above reporting de minimus
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimus
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health, Fire
<b>CERCLA/SARA 313:</b>	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Cyclohexane (CAS# 110-82-7).
<b>California Proposition 65:</b>	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### Canada Regulatory Information

<b>CEPA DSL/NDSL Status:</b>	
<b>WHMIS hazard class:</b>	D.2.B, A

## 16. OTHER INFORMATION

**This material safety data sheet contains changes from the previous version in sections:** This Material Safety Data Sheet contains changes from the previous version in Section(s): 2, 5, 7, 8, 9, 15

**Prepared by:** Mary Ellen Roddy, Sr. Regulatory Affairs Specialist

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# ADHESION PERFORMANCE REFERENCE SHEET

## DuPont™ Tyvek® Fluid Applied Commercial Weatherization Systems Products

The proper adhesion between various weatherization materials is often critical in protecting the building envelope from unwanted air and water infiltration. The necessary level of adhesion is dependent on the joint design and specific performance requirements of a project. The long term performance of the sealant joint will further depend on the proper joint design and sealant installation to accommodate expected joint movement.

The level of adhesion will vary depending on the chemistry of the specific sealant. The sealant adhesion levels listed below are based on DuPont test protocols and in-house testing.

The adhesion testing followed two protocols depending on the type of substrate: for sealants to fluid-applied materials, ASTM C794-10 was used (as specified in AAMA 714-15) and for sealants to self-adhered flashing membranes, ASTM D3330-10 was used (as specified in AAMA 711-13).

The tables below show adhesion levels of the listed **SEALANTS** when applied **OVER** DuPont™ Tyvek® Fluid Applied products & DuPont™ Self-Adhered Flashing topsheets.

Building Sealants	DuPont™ Tyvek® Fluid Applied
Silicone Sealants	★★★
Polyurethane Sealants	★★★★
Hybrid Sealants	★★★
Synthetic Rubber & Butyls	★★★
Acrylic Sealants	★

Building Sealants	DuPont™ Self-Adhered Flashing
Silicone Sealants	★★★
Polyurethane Sealants	★★★
Hybrid Sealants	★★★
Synthetic Rubber & Butyls	★★★
Acrylic Sealants	★★

The tables below show adhesion levels of DuPont™ Tyvek® Fluid Applied products when applied **OVER** the listed sealants, flashings, self-adhered membranes and other general construction materials.

Sealants, Flashings, and SA Membranes	DuPont™ Tyvek® Fluid Applied
Self-Adhered Membranes with HDPE Topsheets	★★★
EPDM Membrane	★★★
PVC with Elvaloy® Membrane	★★★★
Precured Silicone Membrane	★★★
Silicone Sealants	★★★★
Polyurethane Sealants	★★★★
Hybrid Sealants	★★★★
Acrylic Sealants	★★★★
Polyurethane Window & Door Foam (cut surface)	★★

General Construction Materials	DuPont™ Tyvek® Fluid Applied
CMU & Concrete	★★★
Glass Faced Gypsum Sheathing (facer failure)	★★★
Steel and Aluminum	★★★★
Vinyl	★★★
Repair Mortar & Green Concrete	★★★★
Standard & Fire Treated Wood Lumber	★★★★
Wood Exterior Sheathing (plywood, OSB)	★★★★
Polystyrene Insulation Board (board substrate failure)	★
Aluminum Faced Polyiso Board (facer failure)	★

★ = Low (< 1.5 pli. Generally only recommended for gasketed sealing)

★★ = Moderate (1.5 – 5 pli)

★★★ = High (5 – 10 pli)

★★★★ = Very High (> 10 pli)



## ADHESION PERFORMANCE REFERENCE SHEET

For project specific questions and other sealants that may be compatible with DuPont™ Tyvek® Weatherization Systems products, please contact your local DuPont™ Tyvek® Specialist.

**For more information on DuPont™ Tyvek®  
Weatherization Systems,  
please call 1-800-44-TYVEK or  
visit [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com)**

*Disclaimer*

*The sealant adherence information contained in this table is provided by DuPont as a general guide as to the performance of certain types of sealants with DuPont™ Tyvek® Weather Barriers. Ultimately it is the user's responsibility to determine the proper construction materials needed. Appropriate field testing by the user is recommended to determine that chosen products are effective and provide satisfactory performance for the intended use. Please refer to the sealant manufacture for product specific information for their sealant. DuPont assumes no obligation or liability whatsoever in connection with the use of this information.*

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*K-27283-1 6/15*

# CHEMICAL COMPATIBILITY OF REPRESENTATIVE BUILDING SEALANTS

## DuPont™ Tyvek® Commercial Weatherization Systems Products

Commercial construction professionals will often question whether a sealant can come in contact with DuPont™ Tyvek® Weatherization Systems products, including building wraps, fluid applied membranes and self-adhered flashing. Building sealants can play an essential role in protecting the building envelope from air and water infiltration. The chemical compatibility of sealants and weatherization products is important to ensure the effective long term performance and durability of a wall assembly. When creating a sealant joint, both the chemical compatibility and the level of adhesive bonding between the sealant and the DuPont™ Tyvek® Weatherization System products must be considered in order to achieve the desired air and water seal.

**In general, most sealants used in commercial construction are chemically compatible with DuPont™ Tyvek® air and water barrier membranes and DuPont™ Flashing products.**

The tables below list representative examples of sealants that are chemically compatible with DuPont™ Tyvek® air and water barriers and DuPont flashing products, based on internal DuPont testing. Additional sealants may be suitable but were not tested by DuPont<sup>1</sup>. It is recommended that field testing be conducted to determine the acceptability of a specific sealant for the intended use in the particular wall assembly design.

**The sealant products listed in the table below were determined to have acceptable chemical compatibility<sup>1</sup> with DuPont™ Tyvek® Commercial Building Wraps and DuPont™ Self-Adhered Flashing products:**

Silicone Sealants	Polyurethane Sealants	Hybrid Sealants	Synthetic Rubber & Butyl	Acrylics
Dow Corning® 790	OSI VOC Quad® Advanced Formula	DuPont™ Sealant for Tyvek® Fluid Applied System <sup>2</sup>	Bostik Chem-Calk® 300	DuPont™ Residential Sealant
Dow Corning® 795	Bostik Chem-Calk® 900	Tower Tech 3	Tremco® Butyl Sealant	DAP® DynaFlex 230™
Dow Corning® 732	Permathane® SM7108	Bostik Chem-Calk® 2000	Sashco Lexel®	OSI® Pro-Series® PRO-STIK™
Dow Corning® 756	Sikaflex® 1a	Bostik PRO-MS50™	OSI® Pro-Series® Quad®	Henry® AirBloc® 31 MR
Dow Corning® 758	Sonolastic® NP1™	Sikaflex® 721 UV	Tremco® 830	
Dow Corning® 799	Tremco® Dymonic®	Sikaflex® 511		
Dow Corning® 1199	Tremco® Vulkem® 116	BASF Sonolastic®150MS		
GE SCS2000 SilPruf®		3M 5200		
Tremco® Spectrem 1		Prosoco R-Guard® Cat-5®		
Tremco® Spectrem 2				

## CHEMICAL COMPATIBILITY OF REPRESENTATIVE BUILDING SEALANTS

### DuPont™ Tyvek® Commercial Weatherization Systems Products

The sealant products listed in the table below were determined to have acceptable chemical compatibility<sup>1</sup> with DuPont™ Tyvek® Fluid Applied System products:

Polyurethane Sealants	Silicone Sealants	Hybrid Sealants
Permthane® SM7108	Dow Corning® 790	DuPont™ Sealant for Tyvek® Fluid Applied System
Sonolastic® NP1™	Dow Corning® 795	C.R. Laurence CRL M66
Tremco® Dymonic®	Pecora 864	BASF Sonolastic®150MS
	Pecora 895	
	Tremco® Spectrem 1	
	Tremco® Spectrem 2	

<sup>1</sup>Testing was conducted by DuPont Building Innovations on products available in the market at the time, between 2004-2014, for DuPont™ Tyvek® Commercial Building Wraps and DuPont™ Self-Adhered Flashing products. Testing was conducted by DuPont Building Innovations on products available in the market at the time, between 2010-2014 for DuPont™ Tyvek® Fluid Applied Systems products. If you have additional questions about the chemical compatibility of DuPont™ Weatherization products please contact your local DuPont™ Tyvek® Specialist.

<sup>2</sup>All DuPont™ Tyvek® Fluid Applied system products are chemically compatible with DuPont™ Tyvek® CommercialWrap®.

For project specific questions and other sealants that may be compatible with DuPont™ Tyvek® Weatherization Systems products, please contact your local DuPont™ Tyvek® Specialist.

**For more information on DuPont™ Tyvek®  
Weatherization Systems,  
please call 1-800-44-TYVEK or  
visit [www.construction.tyvek.com](http://www.construction.tyvek.com)**

#### Disclaimer

The sealant compatibility information contained in this table is provided by DuPont as a general guide as to the compatibility of these sealants with DuPont™ Tyvek® Weather Barriers. This information is based on DuPont internal testing conducted on the dates indicated above. Please note that the composition of the sealants tested may have changed since the time DuPont conducted its tests. Ultimately it is the user's responsibility to determine the proper construction materials needed. Appropriate field testing by the user is recommended to assure that the chosen sealant is effective and provides satisfactory performance for the intended use. Please refer to the sealant manufacture for product specific information for their sealant. DuPont assumes no obligation or liability whatsoever in connection with the use of this information.

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## DUPONT™ TYVEK® COMMERCIAL AIR BARRIER ASSEMBLIES EXCEED AIR BARRIER ASSOCIATION OF AMERICA, ASHRAE 90.1 AND IECC AIR LEAKAGE REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH ASTM E2357



DuPont test protocol for Tyvek® Fluid Applied WB, Tyvek® CommercialWrap® and Tyvek® CommercialWrap® D also includes rigorous thermal cycling and high-pressure testing.

### INTRODUCTION

High performance air barrier assemblies are a vital part of any commercial structure building envelope. An air barrier assembly is a collection of air barrier materials and components assembled together in a specific manner. A wall air barrier assembly includes the main air barrier material (such as DuPont™ Tyvek® Fluid Applied WB or Tyvek® CommercialWrap®), the components used to join the air barrier material together (tapes), and materials used to seal around penetrations and to connect to windows, doors, roofs, foundations and other assemblies (flashing, primers, sealants, tapes, mechanical fasteners).

Experts agree the performance of an air barrier assembly is of far greater importance than the air permeance of any single component of the system. The testing of a high performance air barrier assembly for air leakage is done in accordance with ASTM E2357 “Standard Test Method for Determining Air Leakage of Air Barriers”.

ASTM E2357 is the only test method that gives the end user information on the performance of an **installed** air barrier assembly. A manufacturer must specify each of the components in the system to declare that it provides an air barrier assembly tested in accordance with ASTM E2357. This is a major benefit to the specifying professional as issues such as compatibility are resolved by the manufacturer rather than relying on trial and error.

### ***ASTM E2357 -- The Industry Accepted Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.***

ASTM E2357 is intended to simulate the performance of various air barrier materials/accessories when combined into an assembly and measures the air leakage of a standardized air barrier assembly before and after exposure to specific pressure cycles. Air barrier assemblies when tested in accordance with ASTM 2357 methodology must not exceed ABAA, ASHRAE 90.1 and IECC maximum air leakage requirement of  $0.2L/(s \cdot m^2)$  @ 75Pa. ( $0.04$  cfm/ft<sup>2</sup> @ 1.57 psf), to be considered an air barrier assembly.

DuPont tests all of its commercial air barrier systems per ASTM E 2357. Third party testing is conducted using DuPont™ Tyvek® commercial air barrier products on opaque and penetrated wall assemblies (with window and other standard penetrations) installed or applied over exterior sheathing.

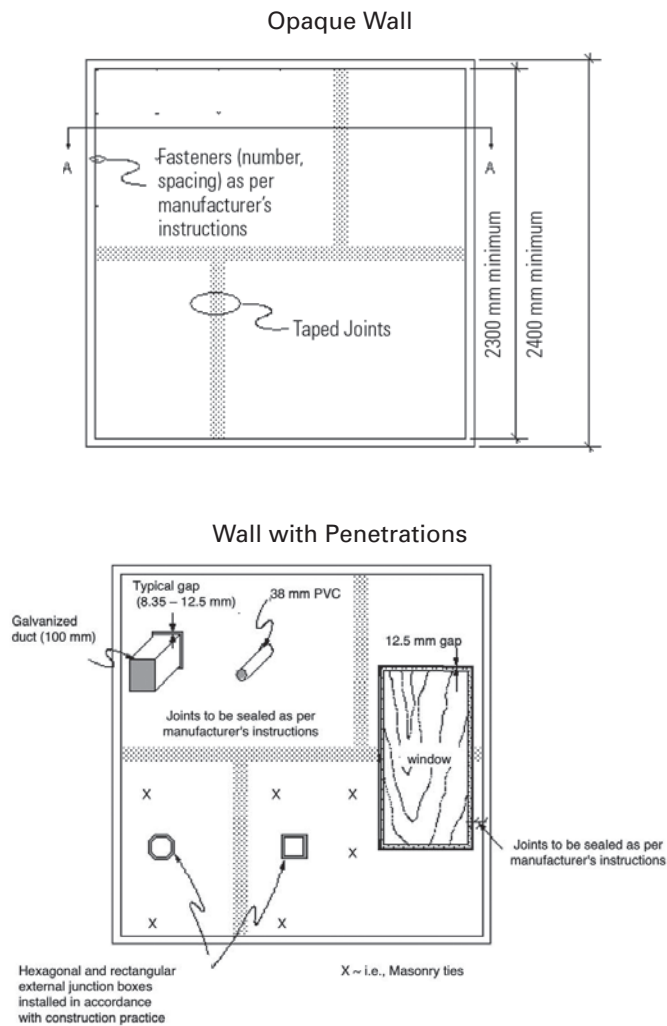
## OVERVIEW OF ASTM E2357 TEST METHODOLOGY

The test method requires a minimum of two, 8' x 8' wall assemblies be tested, which include:

- *Opaque Wall* with horizontal and vertical seams, and
- *Penetrated Wall* with window, duct, and electrical penetrations

Two wall configurations required for testing, are shown in Figure 1.

**Figure 1: Wall Configurations for ASTM E2357 Testing**



## Penetrated wall assemblies

### DuPont™ Tyvek® Fluid Applied WB Air Barrier Assembly

The seams of the gypsum sheathing and the window and other penetrations are flashed and sealed using DuPont self-adhered flashing, DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound and DuPont™ Sealant for Tyvek® Fluid Applied. The Tyvek® Fluid Applied WB is applied to the exterior gypsum board sheathing by power

roller to the recommended thickness of 25 mils. per Tyvek® Fluid Applied System Commercial Installation Guides. The penetrated wall assembly is shown in Figure 2.

**Figure 2: Penetrated Wall Configuration for ASTM E2357 Testing of DuPont™ Tyvek® Fluid Applied Assemblies**



## DuPont™ Tyvek® Commercial Building Wrap Assemblies

In separate tests, DuPont™ Tyvek® CommercialWrap® and CommercialWrap® D are installed over exterior gypsum board sheathing and fastened to steel studs with appropriate fasteners and the desired spacing for testing. The exterior gypsum sheathing seams are not pretreated with any sealing material.

The seams of the commercial building wrap products are taped with 3" DuPont™ Tyvek® Tape. The window and other penetrations are flashed using DuPont™ Flashing Systems products. The penetrated wall assembly is shown in Figure 3.

**Figure 3: Penetrated Wall Configuration for ASTM E2357 Testing of DuPont™ Tyvek® Commercial Building Wrap Assemblies**





## WALL ASSEMBLY TEST PROTOCOL

The wall assemblies are placed into a test chamber and secured for testing. An air supply will provide a positive or negative pressure differential across the test wall assemblies. The ASTM E2357 test method requires wall assembly testing under both positive and negative pressures, since a continuous air barrier will experience both positive and negative pressure loads. The negative load (under suction) is typically the most severe because, in effect, it tries to pull the air barrier assembly off the wall. When a mechanically fastened air barrier assembly is exposed to a negative load pressure, the forces are transferred through the membrane, onto the fasteners and then back to the structural supports (i.e. steel studs). The air leakage is measured before and after exposure according to the ASTM E2357 test protocol. The complete ASTM E2357 test protocol is outlined in Figure 4.

**Figure 4: Summary of Standard testing under ASTM E2357 requirements:**

- **Air Barrier Assembly**
  - 8' x 8' wall assemblies
  - Opaque wall with horizontal and vertical seams
  - Penetrated wall with window, duct, and electrical penetrations
  - DuPont™ Tyvek® Weather Barrier installed with no cladding
- **ASTM E2357 Testing Procedure**
  - Initial Air Leakage Testing
  - Structural Wind Pressure Conditioning
  - Final Air Leakage Testing
  - Deflection Measurements
- **Structural Wind Load Cycles**
  - Sustained: 1 hr sustained positive & negative pressures @ 600 Pa (12.5 psf, 71 mph)
  - Cyclic: 2000 cycles of positive & negative pressures @ 800 Pa (16.7 psf, 82 mph)
  - Gusts: positive & negative pressures @ 1200 Pa (25 psf, 100 mph)

- **Air Leakage Testing (ASTM E 283)**

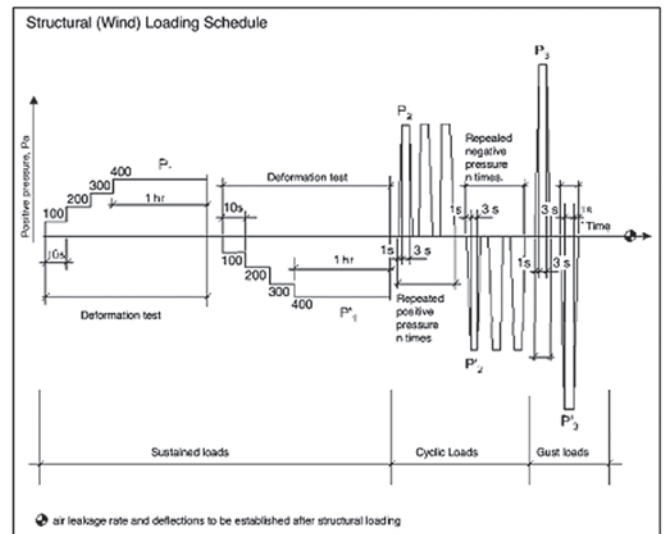
- Measure air leakage @ 7 different pressures: +/- 25 Pa (0.56 psf, 15 mph), 50 Pa (1.04 psf, 20 mph), 75 Pa (1.56 psf, 25 mph), 100 Pa (2.09 psf, 30 mph), 150 Pa (3.24 psf, 35 mph), 250 Pa (5.23 psf, 45 mph), 300 Pa (6.24 psf, 50 mph).

- **Deflection Testing**

- Measure maximum deflection @ 1440 Pa (30 psf, 110 mph) sustained for 10s

After initial air leakage testing, the wall assemblies are submitted to a structural loading schedule as indicated in Figure 5.

**Figure 5: ASTM E2357 Structural (Wind) Loading Schedule**



The structural loading of the wall assembly is based on the assumption that the air barrier assembly will take the full wind loads, that it will experience repeated cycling of high positive and negative pressure loads during its service life (e.g. thousand of cycles), and that the air barrier will see two severe storms in the first 15 years in service. Following the wind pressure conditioning, the assembly is retested for air leakage.

**DUPONT™ TYVEK® COMMERCIAL AIR BARRIER ASTM E2357 TESTING RESULTS**

Air barrier assemblies made with DuPont™ Tyvek® Fluid Applied WB, Tyvek® CommercialWrap® and Tyvek® CommercialWrap® D have averaged air leakage rates *significantly below industry and code air barrier assembly requirements.*

**Third Party Independent ASTM E2357 Test Results for Tyvek® CommercialWrap®, CommercialWrap® D and Tyvek® Fluid Applied WB**

Product	Industry and Code Requirement	Test Result	Meet or Exceed Requirement
Tyvek® Fluid Applied WB	Not to exceed 0.2L/(s•m <sup>2</sup> ) @ 75Pa. (0.04 cfm/ft <sup>2</sup> @ 1.56 psf)	0.0036 L/(s • m <sup>2</sup> ) @ 75 PA [0.0007 cfm /ft <sup>2</sup> @ 1.56 psf] @ 25 mils wet	EXCEED
Tyvek® CommercialWrap®	Not to exceed 0.2L/(s•m <sup>2</sup> ) @ 75Pa. (0.04 cfm/ft <sup>2</sup> @ 1.56 psf)	0.05 L/(s • m <sup>2</sup> ) @ 75 PA [0.01 cfm /ft <sup>2</sup> @ 1.56 psf]	EXCEED
Tyvek® CommercialWrap® D	Not to exceed 0.2L/(s•m <sup>2</sup> ) @ 75Pa. (0.04 cfm/ft <sup>2</sup> @ 1.56 psf)	0.08 L/(s • m <sup>2</sup> ) @ 75 PA [0. 016 cfm /ft <sup>2</sup> @ 1.56 psf]	EXCEED

**AIR BARRIER ASSOCIATION OF AMERICA EVALUATED AIR BARRIER ASSEMBLIES**

Air Barrier Association of America (ABAA) is a trade organization representing the center of excellence in the air barrier industry. Its mission is to promote the use and benefits of air barrier systems and to develop a professional specialty trade and industry dedicated to the installation of effective air barrier systems in buildings.

ABAA recently introduced an air barrier evaluation protocol, which requires air barrier manufacturers to provide 3rd party test reports for air barrier materials and assemblies. ASTM E2357 has been adopted by ABAA as a key element of its acceptance criteria. For a manufacturer to declare that it provides an air barrier assembly, the manufacturer must specify each of the components in the system. This is a major benefit to the design professional as issues such as compatibility are resolved by the manufacturer rather than relying trial and error.

ABAA Evaluated Air Barrier Assemblies are only those materials for which all required wall assembly testing has been submitted and ABAA evaluation has been successfully completed.

DuPont™ Tyvek® CommercialWrap®, and DuPont™ Tyvek® CommercialWrap® D, in conjunction with DuPont Flashing and Accessories, are the first mechanically fastened air barrier systems that have been evaluated and listed by ABAA as an air barrier assembly ([www.airbarrier.org/materials/assemblies\\_e.php](http://www.airbarrier.org/materials/assemblies_e.php)).

DuPont™ Tyvek® Fluid Applied WB, in conjunction with DuPont Flashing and Accessories, has also been evaluated and listed by ABAA as an air barrier assembly ([www.airbarrier.org/materials/assemblies\\_e.php](http://www.airbarrier.org/materials/assemblies_e.php)).



**DuPont is the first manufacturer to offer both mechanically fastened wrap and fluid applied products that have been confirmed to meet ABAA requirements for commercial air barrier assemblies, earning the seal of “ABAA Evaluated”.**

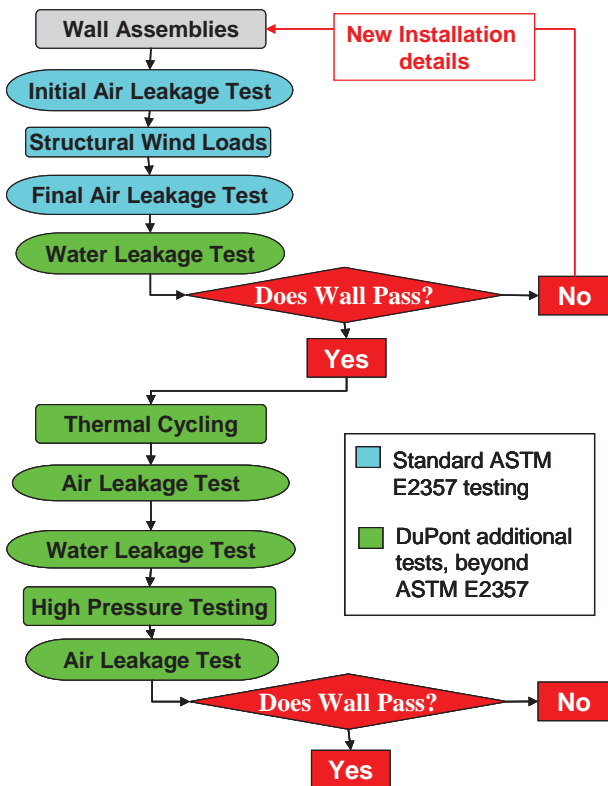
DuPont™ Tyvek® CommercialWrap® and CommercialWrap® D have also completed ABAA evaluation as Water Resistant Barriers and are also listed under “ABAA Evaluated Water Resistive Barriers”

**DUPONT™ TYVEK® COMMERCIAL AIR BARRIERS UNDERGO RIGOROUS THERMAL CYCLING AND HIGH-PRESSURE TESTING IN ADDITION TO ASTM E2357 TEST PROTOCOL**

ABAA requires manufacturers to prove compliance with minimum standard requirements for air barriers primarily in accordance with ASTM E2357. The current air leakage standards for air barrier assemblies do not take into account the temperature variations an air barrier system may experience during use. However, DuPont believes that the expansion and contraction due to temperature variations may affect the continuity and performance of an air barrier assembly. Therefore, the DuPont test protocol routinely used for Tyvek® commercial air barrier systems goes well beyond the standard requirements to include rigorous thermal cycling and high-pressure testing.

**DUPONT TEST PROTOCOL FOR AIR BARRIER ASSEMBLIES**

The following flow chart shows the test protocol used by DuPont to test Tyvek® commercial air barrier systems:



The blue blocks in the flow chart describe air leakage testing under conditions specified in ASTM E2357. In addition to air leakage measurement required by ASTM E2357 standard, DuPont routinely measures water leakage per ASTM E 331, following the structural wind load and final air leakage testing.

All green blocks in the flow diagram are tests routinely performed by DuPont on wall assemblies and are not specified as a part of ASTM 2357 test protocol. The wall assembly is submitted to thermal cycling, in order to simulate conditions that may be experienced by the air barriers during use. Following thermal cycling, the wall assembly is retested for air and water infiltration, as detailed in the Summary below.

**SUMMARY OF ADDITIONAL TESTING PERFORMED BY DUPONT TO TEST TYVEK® COMMERCIAL AIR BARRIER ASSEMBLIES IN ADDITION TO ASTM E2357**

**Thermal Durability Testing**

**(7 days exposure, 4 cycles per days)**

- **Cycle:**
  - Transition - 1 hr from room temperature to 180° F
  - Hold - 1 hr at 180° F
  - Transition - 2 hr from 180° F to 0° F
  - Hold - 1 hr at 0° F
  - Transition - 1 hr from 0° F back to room temperature
- **Air Infiltration / Exfiltration Assembly Test (ASTM E 283)**
  - Measure infiltration and exfiltration at 25, 50, 75, 100, 150, 250, and 300 Pa.
- **Water Infiltration Assembly Test (ASTM E 331)**
  - Infiltration pressure of 0.56 psf (25 Pa) for 15 min
  - Infiltration pressure of 1.56 psf (75 Pa) for 15 min
  - Infiltration pressure of 15 psf (700 Pa) for 15 min

**High Pressure Performance Testing**

- **Test Sequence:**
  - Pressurize to 60 psf (-155 mph) for 10s
  - Measure Air Infiltration / Exfiltration @ 75 Pa
  - Pressurize to 90 psf (-190 mph) for 10s
  - Measure Air Infiltration / Exfiltration @ 75 Pa
  - Pressurize to Failure

Finally, the wall assemblies are tested to high pressures, until they fail. These tests allow DuPont to validate the installation guidelines for our air barrier systems Figure 6.

## DUPONT™ TYVEK® COMMERCIAL AIR BARRIER ASSEMBLIES EXCEED AIR BARRIER ASSOCIATION OF AMERICA, ASHRAE 90.1 AND IECC AIR LEAKAGE REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH ASTM E2357

Figure 6. Phase II: Structural High Pressure Performance Testing



### CONCLUSION

DuPont weatherization products are rigorously tested and, when used as system, help to increase the air tightness of the building envelope, which can have a positive impact on a building's energy efficiency:

- DuPont is the only manufacturer that offers both fluid-applied and mechanically fastened wrap products that pass the industry air leakage requirements for air barrier assemblies when tested in accordance with ASTM E2357
- Consistent with the DuPont commitment to offer products that exceed current standards, in addition to testing per ASTM 2357, DuPont employs an additional rigorous air barrier assembly test protocol that includes thermal cycling and high-pressure testing to satisfy our own high standards for performance and durability.

- DuPont™ Tyvek® air barrier systems are designed to work together to seal the building envelope, helping not only to improve energy efficiency but also to protect building structures from water damage and provide improved comfort and indoor air quality for occupants.

DuPont™ Tyvek® commercial air barriers play an integral role in increasing the overall sustainability of buildings. The energy consumed during building operation accounts for the major share of energy consumption over the life of a building—making energy efficiency one of the most critical components in reducing the environmental impact of commercial structures.

### ADDITIONAL RESOURCES

A detailed article on testing of DuPont Tyvek® Air Barrier wall assemblies was published in The Construction Specifier and is available for viewing at [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com).

**For more information on DuPont™ Tyvek® Air Barrier Systems or to locate a DuPont™ Tyvek® Specialist in your area, please call 1-800-44-TYVEK or visit [www.weatherization.tyvek.com](http://www.weatherization.tyvek.com)**



Proud Member



DUPONT IS PROUD TO BE  
A FOUNDING MEMBER OF  
THE WBCSD.



Name DuPont™ Tyvek® Spunbond Polyethylene



Product ID MSDS 150000002811 Classification 07 25 00.00 Thermal and Moisture Protection (insulation water barrier): Weather Barriers

Website www.tyvek.com

Manufacturer E.I. du Pont de Nemours and Company Contact Name James Chambers Title Product Manager

Address 1007 Market Street Wilmington, DE 19898 Phone Phone Number Email 1-800-448-9835

Description Since the initial discovery in 1955 that led to Tyvek®, DuPont has been a recognized global leader in selective barrier technology. Lightweight and durable, DuPont™ Tyvek® has introduced new dimensions of protection, security and safety in a wide variety of industries. This Tyvek® spunbond polyethylene HPD covers the following: Tyvek® CommercialWrap®, Tyvek® CommercialWrap® D, Tyvek® Stuccowrap®, Tyvek® Homewrap®, and Tyvek® DrainWrap™.

Release Date 2014-12-01 Expiry Date 2017-12-01 HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/270/1496-20141201125420.pdf Self-declared Second Party Third Party Certifier Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure: Measured 100 ppm (ideal), Measured 1000 ppm, Predicted by process chemistry, As per MSDS (1,000 & 10,000 ppm), Not disclosed, Other. Full Disclosure of Intentional Ingredients: Yes, No. Full Disclosure of Known Hazards: Yes, No. Disclosure Notes: See NOTES section on last page of this HPD for full-disclosure "MANUFACTURER INVENTORY" of all ingredients by name and Chemical Abstract Service (CAS) registry number or Proprietary Ingredients hazards associated with LT-1 / LT-P1 down to 0.1% (1000ppm), which meets the requirements of LEED v4 Materials & Resources, Building Product Disclosure and Optimization - Material Ingredients, OPTION #1: Material Ingredient Reporting.

Contents in Descending Order of Quantity Undisclosed (Nonwoven Fabric)

Hazards: PBT (Persistent Bioaccumulative Toxic), Cancer, Gene Mutation, Development, Reproductive, Endocrine, Respiratory, Highest concern GreenScreen score - unknown: Neurotoxicity, Mammal, Skin or Eye, Aquatic toxicity, Land toxicity, Physical hazard, Global warming, Ozone depletion, Multiple, Unknown.

Total VOC Content Material (g/L) N/A Regulatory (g/L) N/A Does the product contain exempt VOCs? N/A Are there VOC-free tints available? N/A

Notes

Certifications + Compliance

VOC Emissions Not tested VOC Content N/A

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This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit [hpdcollaborative.org](http://hpdcollaborative.org).

## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at [www.hpdcollaborative.org/hazardlists](http://www.hpdcollaborative.org/hazardlists).

**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
Undisclosed (Nonwoven Fabric)	Unknown	100 %		U	N	Body
Unknown	Not disclosed					
Polyethylene (CAS# 9002-88-4) and various proprietary additives, such as thermal and UV stabilizers , are included in this component. This product has no known adverse effect on human health. Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled.						

## CERTIFICATIONS AND COMPLIANCE

**Certifying Party** = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			
VOC Content	N/A			



Recycled Content	Not tested			
Other				

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
<b>Condition when required or recommended and/or other notes</b>	
DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)	
DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.	
DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)	
Choose a high quality, lower viscosity fluid applied flashing that can be brushed on for improved protection of complex window openings including effective application around recessed windows.	
DuPont™ FlexWrap™ NF	
DuPont™ FlexWrap™ NF self-adhered flashing does not require mechanical fasteners, even in flexed corner areas around building openings. This allows it to provide easy, one-step insulation for hard-to-seal corners around windows and doors. FlexWrap™ NF is designed to help protect vulnerable corners against air and water intrusion, as part of a complete DuPont Building Envelope Solution.	
DuPont™ Tyvek® Wrap Caps	
DuPont™ Tyvek® Wrap Caps are the recommended fastening method for DuPont Weatherization Systems. They provide additional protection around fastener penetrations and increases fastener-holding power.	
DuPont™ Residential Sealant (VOC 16.00 g/L)	
As an integral part of a complete building envelope system, DuPont™ Residential Sealant helps control both air and water intrusion, to help make homes more comfortable, prevent water damage, and reduce heating and cooling costs.	
DuPont™ Tyvek® ThermaWrap™ R5.0	
DuPont™ Tyvek® ThermaWrap™ R5.0 offers the air and water management benefits of all DuPont™ Tyvek® weather barriers with an R-value of 5.0. Compared to other exterior insulation products, the unique structure of Tyvek® ThermaWrap™ R5.0 allows any moisture that may get inside the wall to dry and escape to the outside, helping to prevent the accumulation of water in the wall reducing the chance for water damage and mold.	
DuPont™ StraightFlash™	

DuPont™ StraightFlash™ door and window flashing provides premium protection against water intrusion. By sealing vulnerable areas around openings, StraightFlash™ can help improve the durability and energy efficiency of both homes and commercial structures.

DuPont™ StraightFlash™ VF

StraightFlash™ VF integrates easily with other DuPont weatherization products, including Tyvek® air and water barriers to help seal the building envelope. By protecting against water intrusion, StraightFlash™ VF helps prevent water damage to windows, doors. In addition, it can keep water out of wall systems and away from insulation, to improve both durability and energy efficiency.

DuPont™ Flashing Tape

DuPont™ Flashing Tape helps protect the heads and jambs of rectangular doors and windows from air and water intrusion. Wind-driven rain and outdoor air can find their way into walls around windows and doors. By helping to seal the building envelope, self-adhered DuPont™ Flashing Tape can help reduce the risk of water damage, increase building comfort, and improve energy efficiency.

Tyvek® Tape: Seam Tape

Choose the best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape.

DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)

Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations

DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)

Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.

**NOTES**

MANUFACTURER INVENTORY as per LEED v4 Materials & Resources, Building Product Disclosure and Optimization - Material Ingredients, OPTION #1: Material Ingredient Reporting. An inventory of all ingredients identified by name and Chemical Abstract Service Registration Number CASRN down to 0.1% (1000ppm) is provided in the following and contributes toward LEED v4: POLYETHYLENE, 9002-88-4, 98-100% // UV Stabilizer (PROPRIETARY INGREDIENT), LT-P1\*\*, German FEA - Substances Hazardous to Waters - Class 2 Hazard to Waters, Hazard level: Potential Concern, 0-2% // TOTAL=100% // Exposure to any hazards associated with the inputs mentioned are not present in the finished form of DuPont™ Tyvek Spunbond Polyethelene Products. // \*\*The Geenscreen® List Translator score of LT-P1 for any ingredient means that the database searched “possible BM1 and reflects the presence of the chemical on Screening A or B lists and some uncertainty about the classification for key endpoints. Further research is needed on the flagged endpoint...” <http://www.greenscreenchemicals.org/method/greenscreen-list-translator>

Name DuPont™ Tyvek® StraightFlash™



Product ID MSDS 130000138728 Classification 07 65 00.00 Thermal and Moisture Protection (insulation water barrier): Flexible Flashing

Website www.dupont.com/products-and-services/construction-materials/building-envelope-systems/brands/flashing-products.html

Manufacturer E.I. du Pont de Nemours and Company Contact Name James Chambers Title Product Manager

Address 1007 Market Street Wilmington, DE 19898 Phone 1-800-426-7426 Email

Description This HPD also includes StraightFlash VF™. DuPont™ StraightFlash™ door and window flashing provides premium protection against water intrusion. By sealing vulnerable areas around wall openings, StraightFlash™ can help improve the durability and energy efficiency of both homes and commercial structures. DuPont™ StraightFlash™ VF (Versatile Flange) is an innovative, dual-sided butyl, self-adhered window and door flashing. It is specifically designed to help keep wind-driven rain from entering around non-flanged and brick mold windows and doors in brick facades.

Release Date 2014-10-22 Expiry Date 2017-10-22 HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/270/2056-20141022140026.pdf Certifier Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure Full Disclosure of Intentional Ingredients Full Disclosure of Known Hazards Disclosure Notes

Contents in Descending Order of Quantity Undisclosed (Adhesive) , Undisclosed (Tyvek Top Sheet)

Hazards Highest concern GreenScreen score - unknown

Total VOC Content Material (g/L) Regulatory (g/L) Does the product contain exempt VOCs? Are there VOC-free tints available?

Notes

Certifications + Compliance VOC Emissions Not tested VOC Content N/A

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## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at [www.hpdcollaborative.org/hazardlists](http://www.hpdcollaborative.org/hazardlists).

**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
Undisclosed (Adhesive)	Unknown	90 %		N	N	Adhesive
Unknown	Not disclosed					
There are no associated hazards for this product in the MSDS. Refer to the Data source section to review the MSDS. This ingredient is responsible for the adhesion of the StraightFlash™ flashing system.						
Undisclosed (Tyvek Top Sheet)	Unknown	10 %		N	N	Body
Unknown	Not disclosed					
There are no associated hazards for this product in the MSDS. Refer to the Data source section to review the MSDS. This component acts as the main structure of the StraightFlash™ flashing system.						

## CERTIFICATIONS AND COMPLIANCE

**Certifying Party** = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			

VOC Content	N/A		
Recycled Content	Not tested		
Other			

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
<b>Condition when required or recommended and/or other notes</b>	
DuPont™ Flashing Tape	
DuPont™ Flashing Tape helps protect the heads and jambs of rectangular doors and windows from air and water intrusion. Wind-driven rain and outdoor air can find their way into walls around windows and doors. By helping to seal the building envelope, self-adhered DuPont™ Flashing Tape can help reduce the risk of water damage, increase building comfort, and improve energy efficiency.	
DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)	
Choose a high quality, lower viscosity fluid applied flashing that can be brushed on for improved protection of complex window openings including effective application around recessed windows.	
DuPont™ FlexWrap™ NF	
DuPont™ FlexWrap™ NF self-adhered flashing does not require mechanical fasteners, even in flexed corner areas around building openings. This allows it to provide easy, one-step insulation for hard-to-seal corners around windows and doors. FlexWrap™ NF is designed to help protect vulnerable corners against air and water intrusion, as part of a complete DuPont Building Envelope Solution.	
DuPont™ Tyvek® Wrap Caps	
DuPont™ Tyvek® Wrap Caps are the recommended fastening method for DuPont™ Weatherization Systems. They provide additional protection around fastener penetrations and increases fastener-holding power.	
DuPont™ Tyvek®; DuPont™ Tyvek® CommercialWrap®; DuPont™ Tyvek® CommercialWrap® D; DuPont™ Tyvek® StuccoWrap®; DuPont™ Tyvek® HomeWrap®; DuPont™ Tyvek® DrainWrap™	
There are many Tyvek® product types to meet your building protection, durability and aesthetic needs, including the products listed.	

DuPont™ Residential Sealant (VOC 16.00 g/L)

As an integral part of a complete building envelope system, DuPont™ Residential Sealant helps control both air and water intrusion, to help make homes more comfortable, prevent water damage, and reduce heating and cooling costs.

DuPont™ Tyvek® ThermaWrap™ R5.0

DuPont™ Tyvek® ThermaWrap™ R5.0 offers the air and water management benefits of all DuPont™ Tyvek® weather barriers with an insulation R-value of 5.0. Compared to other exterior insulation products, the unique structure of Tyvek® ThermaWrap™ R5.0 allows any moisture that may get inside the wall to evaporate and the moisture vapor to escape to the outside, helping to prevent the accumulation of water in the wall and reducing the chance for water damage and mold.

Tyvek® Tape: Seam Tape

The best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water intrusion; for use in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape.

DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)

Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations

DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)

Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.

DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)

DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.

## NOTES

Name DuPont™ Tyvek® FlexWrap™ NF



Product ID MSDS 130000121391 Classification 07 65 00.00 Thermal and Moisture Protection (insulation water barrier): Flexible Flashing

Website www.tyvek.com

Manufacturer E.I. du Pont de Nemours and Company Contact Name James Chambers Title Product Manager

Address 1007 Market Street Wilmington, DE 19898 Phone 1-800-426-7426 Email

Description DuPont™ Tyvek® FlexWrap™ self-adhered flashing does not require mechanical fasteners, even in flexed corner areas around building openings. This allows it to provide easy, one-step insulation for hard-to-seal corners around windows and doors. Tyvek® FlexWrap™ is designed to help protect vulnerable corners against air and water intrusion, as part of a complete DuPont™ Building Envelope System.

Release Date 2014-10-22 Expiry Date 2017-10-22 HPD URL <https://tool.hpdcollaborative.org/uploads/files/hpds/270/2058-20141022140214.pdf>

Self-declared  
 Second Party  
 Third Party  
Certifier  
Certificate #

### SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

#### Residuals Disclosure

- Measured 100 ppm (ideal)
- Measured 1000 ppm
- Predicted by process chemistry
- As per MSDS (1,000 & 10,000 ppm)
- Not disclosed
- Other

#### Full Disclosure of Intentional Ingredients

Yes  No

#### Full Disclosure of Known Hazards

Yes  No

#### Disclosure Notes

#### Contents in Descending Order of Quantity

Undisclosed (Adhesive) , Undisclosed (Tyvek Top Sheet)

#### Hazards

- PBT (Persistent Bioaccumulative Toxic)
- Cancer
- Gene Mutation
- Development
- Reproductive
- Endocrine
- Respiratory

#### Highest concern GreenScreen score - unknown

- Neurotoxicity
- Mammal
- Skin or Eye
- Aquatic toxicity
- Land toxicity
- Physical hazard
- Global warming
- Ozone depletion
- Multiple
- Unknown

#### Total VOC Content

Material (g/L) N/A  
Regulatory (g/L) N/A

#### Does the product contain exempt VOCs?

N/A  Yes  No

#### Are there VOC-free tints available?

N/A  Yes  No

#### Notes

#### Certifications + Compliance

VOC Emissions Not tested

VOC Content N/A

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## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at [www.hpdcollaborative.org/hazardlists](http://www.hpdcollaborative.org/hazardlists).

**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
Undisclosed (Adhesive)	Unknown	90 %		N	N	Adhesive
Unknown	Not disclosed					
There are no associated hazards for this product in the MSDS. Refer to the Data source section to review the MSDS. This ingredient is responsible for the adhesion of the Tyvek® FlexWrap™ flashing system.						
Undisclosed (Tyvek Top Sheet)	Unknown	10 %		N	N	Body
Unknown	Not disclosed					
There are no associated hazards for this product in the MSDS. Refer to the Data source section to review the MSDS. This component acts as the main structure of the Tyvek® FlexWrap™ flashing system.						

## CERTIFICATIONS AND COMPLIANCE

**Certifying Party** = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			



VOC Content	N/A			
Recycled Content	Not tested			
Other				

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
<b>Condition when required or recommended and/or other notes</b>	
DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)	
Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.	
DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)	
Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations	
Tyvek® Tape: Seam Tape	
The best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape.	
DuPont™ StraightFlash™ VF	
StraightFlash™ VF integrates easily with other DuPont™ weatherization products, including Tyvek® air and water barriers, to help seal the building envelope. By protecting against water intrusion, StraightFlash™ VF helps prevent water damage to windows and doors. In addition, it can help keep water out of the wall system and away from insulation helping to improve the insulation's durability and preserve its R-value.	
DuPont™ StraightFlash™	
DuPont™ StraightFlash™ door and window flashing provides premium protection against water intrusion. By sealing vulnerable areas around openings, StraightFlash™ can help improve the durability and energy efficiency of both homes and commercial structures.	
DuPont™ Tyvek® ThermaWrap™ R5.0	

DuPont™ Tyvek® ThermaWrap™ R5.0 offers the air and water management benefits of all DuPont™ Tyvek® weather barriers with an insulation R-value of 5.0. Compared to other exterior insulation products, the unique structure of Tyvek® ThermaWrap™ R5.0 allows any moisture that may get inside the wall to evaporate and moisture vapor to escape to the outside, helping to prevent the accumulation of water in the wall and reducing the chance for water damage and mold.

DuPont™ Residential Sealant (VOC 16.00 g/L)

As an integral part of a complete building envelope system, DuPont™ Residential Sealant helps control both air and water intrusion, to help make homes more comfortable, prevent water damage, and reduce heating and cooling costs.

DuPont™ Tyvek® Wrap Caps

DuPont™ Tyvek® Wrap Caps are the recommended fastening method for DuPont™ Weatherization Systems. They provide additional protection around fastener penetrations and increases fastener-holding power.

DuPont™ Tyvek®; DuPont™ Tyvek® CommercialWrap®; DuPont™ Tyvek® CommercialWrap® D; DuPont™ Tyvek® StuccoWrap®; DuPont™ Tyvek® HomeWrap®; DuPont™ Tyvek® DrainWrap™

There are many Tyvek® product types to meet your building protection, durability and aesthetic needs, including the products listed.

DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)

A high quality, lower viscosity fluid applied flashing that can be brushed on for improved protection of complex window openings including effective application around recessed windows.

DuPont™ Flashing Tape

DuPont™ Flashing Tape helps protect the heads and jambs of rectangular doors and windows from air and water intrusion. Wind-driven rain and outdoor air can find their way into walls around windows and doors. By helping to seal the building envelope, self-adhered DuPont™ Flashing Tape can help reduce the risk of water damage, increase building comfort, and improve energy efficiency.

DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)

DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.

## NOTES

Name DuPont™ Flashing Tape



Product ID MSDS NWT002 Classification 07 25 00.00 Thermal and Moisture Protection (insulation water barrier): Weather Barriers

Website www.weatherization.tyvek.com

Manufacturer E.I. du Pont de Nemours and Company Contact Name James Chambers Title Product Manager

Address 1007 Market Street Wilmington, De 19898 Phone Phone Email 1-800-448-9835

Description DuPont™ Flashing Tape helps protect the heads and jambs of rectangular doors and windows from air and water intrusion. Wind-driven rain and outdoor air can find their way into walls around windows and doors. By helping to seal the building envelope, self-adhered DuPont™ Flashing Tape can help reduce the risk of water damage, increase building comfort, and improve energy efficiency. Exposure to any hazards associated with the inputs mentioned are not present in the finished form of DuPont™ Flashing Tape. The ingredients listed which trigger the associated cancer hazard are inert within the finished form of DuPont™ Flashing Tape.

Release Date 2014-10-03 Expiry Date 2017-10-03 HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/270/1479-20141003132021.pdf Self-declared Second Party Third Party Certifier Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure Full Disclosure of Intentional Ingredients Full Disclosure of Known Hazards Disclosure Notes Yes No Yes No

Contents in Descending Order of Quantity

Undisclosed (Polypropylene film) , Undisclosed (Butyl adhesive) , CARBON BLACK

Hazards Highest concern GreenScreen score - List Translator Benchmark 1 PBT (Persistent Bioaccumulative Toxic) Cancer Gene Mutation Development Reproductive Endocrine Respiratory Neurotoxicity Mammal Skin or Eye Aquatic toxicity Land toxicity Physical hazard Global warming Ozone depletion Multiple Unknown

Total VOC Content Material (g/L) Regulatory (g/L) N/A N/A Does the product contain exempt VOCs? Are there VOC-free tints available? N/A N/A Yes No Yes No

Notes

Certifications + Compliance

VOC Emissions Not tested VOC Content N/A

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## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

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**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
Undisclosed (Polypropylene film)	Unknown	0 - 100 %		N	N	Body
Unknown	Not disclosed					
Proprietary components are withheld as a trade secret. The percent by weight for this component is intellectual property.						
Undisclosed (Butyl adhesive)	Unknown	0 - 100 %		N	N	Adhesive
Unknown	Not disclosed					
Proprietary components are withheld as a trade secret. The percent by weight for this component is intellectual property.						
CARBON BLACK	1333-86-4	0 - 1 %	LT-1	N	N	Colorant
CANCER	NIOSH-C: Occupational carcinogen (also in Prop 65, IARC, MAK)					
Proprietary components are withheld as a trade secret.						

## CERTIFICATIONS AND COMPLIANCE

**Certifying Party** = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			

VOC Content	N/A			
Recycled Content	Not tested			
Other				

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
<b>Condition when required or recommended and/or other notes</b>	
DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)	
A high quality, lower viscosity fluid applied flashing that can be brushed on for improved protection of complex window openings including effective application around recessed windows.	
DuPont™ FlexWrap™ NF	
DuPont™ FlexWrap™ NF self-adhered flashing does not require mechanical fasteners, even in flexed corner areas around building openings. This allows it to provide easy, one-step insulation for hard-to-seal corners around windows and doors. FlexWrap™ NF is designed to help protect vulnerable corners against air and water intrusion, as part of a complete DuPont Building Envelope Solution.	
DuPont™ Residential Sealant (VOC 16.00 g/L)	
As an integral part of a complete building envelope system, DuPont™ Residential Sealant helps control both air and water intrusion, to help make homes more comfortable, prevent water damage, and reduce heating and cooling costs.	
DuPont™ Tyvek® Wrap Caps	
DuPont™ Tyvek® Wrap Caps are the recommended fastening method for DuPont™ Weatherization Systems. They provide additional protection around fastener penetrations and increases fastener-holding power.	
DuPont™ StraightFlash™	

DuPont™ StraightFlash™ door and window flashing provides premium protection against water intrusion. By sealing vulnerable areas around openings, StraightFlash™ can help improve the durability and energy efficiency of both homes and commercial structures.

DuPont™ Tyvek® ThermaWrap™ R5.0

DuPont™ Tyvek® ThermaWrap™ R5.0 offers the air and water management benefits of all DuPont™ Tyvek® weather barriers with an insulation R-value of 5.0. Compared to other exterior insulation products, the unique structure of Tyvek® ThermaWrap™ R5.0 allows any moisture that may get inside the wall to evaporate and the moisture vapor to escape to the outside, helping to prevent the accumulation of water in the wall and reducing the chance for water damage and mold.

DuPont™ Tyvek®; DuPont™ Tyvek® CommercialWrap®; DuPont™ Tyvek® CommercialWrap® D; DuPont™ Tyvek® StuccoWrap®; DuPont™ Tyvek® HomeWrap®; DuPont™ Tyvek® DrainWrap™

There are many Tyvek® product types to meet your building protection, durability and aesthetic needs, including the products listed.

DuPont™ StraightFlash™ VF

StraightFlash™ VF integrates easily with other DuPont™ weatherization products, including Tyvek® air and water barriers, to help seal the building envelope. By protecting against water intrusion, StraightFlash™ VF helps prevent water damage to windows and doors. In addition, it can help keep water out of the wall system and away from insulation helping to improve the insulation's durability and preserve its R value.

Tyvek® Tape: Seam Tape

The best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water intrusion; for use in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape.

DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)

Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.

DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)

DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.

DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)

Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations

## NOTES

Name DuPont™ Tyvek® Wrap Caps



Product ID HDPE003 Classification 07 65 00.00 Thermal and Moisture Protection (insulation water barrier): Flexible Flashing

Website www.dupont.com/products-and-services/construction-materials/building-envelope-systems/brands/water-barrier-systems/products/residential-wrap-

Manufacturer E.I. du Pont de Nemours and Company Contact Name Nicole Murphy Title Product Manager Address 1007 Market Street Phone 1-800-448-9835 Wilmington, DE 19898 Email

Description DuPont™ Tyvek® Wrap Caps are the recommended fastening method for DuPont Weatherization Systems. They provide additional protection around fastener penetrations and increases fastener-holding power. This product is manufactured by SGS for DuPont™. For additional product information call (86-755) 8307 1443.

Release Date 2014-10-07 Expiry Date 2017-10-07 HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/270/1497-20141007153241.pdf Self-declared Second Party Third Party Certifier Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure Full Disclosure of Intentional Ingredients Full Disclosure of Known Hazards Disclosure Notes Yes No Yes No

Contents in Descending Order of Quantity

1-Butene, polymer with ethene

Hazards Highest concern GreenScreen score - unknown PBT (Persistent Bioaccumulative Toxic) Development Reproductive Endocrine Respiratory Neurotoxicity Mammal Skin or Eye Aquatic toxicity Land toxicity Physical hazard Global warming Ozone depletion Multiple Unknown

Total VOC Content Material (g/L) Regulatory (g/L) Does the product contain exempt VOCs? Are there VOC-free tints available? N/A N/A N/A Yes No Yes No

Notes

Certifications + Compliance

VOC Emissions Not tested VOC Content N/A

The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit [hpdcollaborative.org](http://hpdcollaborative.org).

## CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level.

Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at [www.hpdcollaborative.org/hazardlists](http://www.hpdcollaborative.org/hazardlists).

**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
1-Butene, polymer with ethene	25087-34-7	100 %	LT-U	U	N	Body
None found	No warnings found on HPD Priority lists					

## CERTIFICATIONS AND COMPLIANCE

**Certifying Party** = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			
VOC Content	N/A			



Recycled Content	Not tested			
Other				

**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

Required or Recommended Product	URL for Companion Health Product Declaration
<b>Condition when required or recommended and/or other notes</b>	
DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)	
DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.	
DuPont™ Flashing Tape	
DuPont™ Flashing Tape helps protect the heads and jambs of rectangular doors and windows from air and water intrusion. Wind-driven rain and outdoor air can find their way into walls around windows and doors. By helping to seal the building envelope, self-adhered DuPont™ Flashing Tape can help reduce the risk of water damage, increase building comfort, and improve energy efficiency.	
DuPont™ Tyvek®; DuPont™ Tyvek® CommercialWrap®; DuPont™ Tyvek® CommercialWrap® D; DuPont™ Tyvek® StuccoWrap®; DuPont™ Tyvek® HomeWrap®; DuPont™ Tyvek® DrainWrap™	
There are many Tyvek® product types to meet your building protection, durability and aesthetic needs, including the products listed.	
DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)	
A high quality, lower viscosity fluid applied flashing that can be brushed on for improved protection of complex window openings including effective application around recessed windows.	
DuPont™ Residential Sealant (VOC 16.00 g/L)	
As an integral part of a complete building envelope system, DuPont™ Residential Sealant helps control both air and water intrusion, to help make homes more comfortable, prevent water damage, and reduce heating and cooling costs.	
DuPont™ Tyvek® ThermaWrap™ R5.0	
DuPont™ Tyvek® ThermaWrap™ R5.0 offers the air and water management benefits of all DuPont™ Tyvek® weather barriers with an insulation R-value of 5.0. Compared to other exterior insulation products, the unique structure of Tyvek® ThermaWrap™ R5.0 allows any moisture that may get inside the wall to evaporate and the moisture vapor to escape to the outside, helping to prevent the accumulation of water in the wall and reducing the chance for water damage and mold.	
DuPont™ StraightFlash™	

DuPont™ StraightFlash™ door and window flashing provides premium protection against water intrusion. By sealing vulnerable areas around openings, StraightFlash™ can help improve the durability and energy efficiency of both homes and commercial structures.

DuPont™ StraightFlash™ VF

StraightFlash™ VF integrates easily with other DuPont™ weatherization products, including Tyvek® air and water barriers, to help seal the building envelope. By protecting against water intrusion, StraightFlash™ VF helps prevent water damage to windows and doors. In addition, it can help keep water out of the wall system and away from insulation helping to improve the insulation's durability and preserve its R-value.

DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)

Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.

Tyvek® Tape: Seam Tape

The best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water intrusion; for use in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape.

DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)

Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations

**NOTES**

Name Tyvek® Tape: Seam Tape



Product ID MSDS 130000052444 Classification 07 25 00.00 Thermal and Moisture Protection (insulation water barrier): Weather Barriers

Website www.dupont.com/products-and-services/construction-materials/building-envelope-systems/products/tyvek-tape-seam-tape.html

Manufacturer E.I. du Pont de Nemours and Company Contact Name James Chambers Title Product Manager

Address 1007 Market Street Wilmington, DE 19898 Phone Phone Number Email 1-800-448-9835

Description Choose the best seam tape for sealing DuPont™ Tyvek® weather barriers against air and water in both residential and commercial construction. Finish the building envelope with a superior seam tape – DuPont™ Tyvek® Tape. It helps to create a continuous building envelope system which keeps water and air out. Benefits can include not only better building durability but improved energy efficiency through reduced air leakage. Exposure to any hazards associated with the inputs mentioned are not present in the finished form of DuPont™ Tyvek® Tape.

Release Date 2014-10-03 Expiry Date 2017-10-03 HPD URL https://tool.hpdcollaborative.org/uploads/files/hpds/270/1498-20141003132751.pdf Self-declared Second Party Third Party Certifier Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure Full Disclosure of Intentional Ingredients Full Disclosure of Known Hazards Disclosure Notes Yes No Yes No

Contents in Descending Order of Quantity

Undisclosed (Acrylic adhesive) , Undisclosed (Polypropylene film)

Hazards Highest concern GreenScreen score - unknown PBT (Persistent Bioaccumulative Toxic) Development Reproductive Endocrine Respiratory Neurotoxicity Land toxicity Multiple Mammal Physical hazard Unknown Skin or Eye Global warming Aquatic toxicity Ozone depletion

Total VOC Content Material (g/L) Regulatory (g/L) N/A N/A Does the product contain exempt VOCs? Are there VOC-free tints available? N/A N/A Yes No Yes No

Notes

Certifications + Compliance

VOC Emissions Not tested VOC Content N/A

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**GS:** GreenScreen Benchmark; **RC:** Recycled Content, **PC:** Post Consumer, **PI:** Post Industrial (Pre-consumer), **BO:** Both; **Nano:** comprised of nanoscale particles or nanotechnology

Name	CAS RN	% weight	GS	RC	Nano	Role
Hazard A	Warning A					
Hazard B	Warning B					
Hazard C	Warning C					
Hazard D	Warning D					
Hazard E	Warning E					
Notes						
Undisclosed (Acrylic adhesive)	Unknown	0 - 100 %		N	N	Adhesive
Unknown	Not disclosed					
Proprietary components are withheld as a trade secret. The percent by weight for this component is intellectual property.						
Undisclosed (Polypropylene film)	Unknown	0 - 100 %		N	N	Body
Unknown	Not disclosed					
Proprietary components are withheld as a trade secret. The percent by weight for this component is intellectual property.						

## CERTIFICATIONS AND COMPLIANCE

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**Applicable facilities** = Manufacturing sites to which testing applies.

Type	Standard or Certification			Certifier or Laboratory
	Certifying Party	Issue Date	Expiry Date	Certificate URL
	Applicable Facilities			
	Notes			
VOC Emissions	Not tested			

VOC Content	N/A		
Recycled Content	Not tested		
Other			

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DuPont™ FlexWrap™ NF	
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DuPont™ Tyvek® Fluid Applied Flashing: Brush (VOC 25.00 g/L)	
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DuPont™ Tyvek® Wrap Caps	
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DuPont™ Tyvek® Fluid Applied WB (VOC 25.00 g/L)

DuPont™ Tyvek® Fluid Applied Weather Barrier Systems provide water and fluid applied air barrier protection designed for the unique demands of heavy commercial construction projects.

DuPont™ Sealant for Tyvek® Fluid Applied System (VOC 25.00 g/L)

Is specifically designed for easy use with the DuPont™ Tyvek® Fluid Applied System: fills gaps around windows, doors and penetrations

DuPont™ Tyvek® Fluid Applied Flashing & Joint Compound (VOC 25.00 g/L)

Fluid Applied Flashing & Joint Compound is an integral part of the DuPont™ Tyvek® Fluid Fluid Applied system, combining the functions of both flashing and joint compound into a single unique product to help increase job site efficiency by preventing lost time and material waste.

**NOTES**