



Durajoint[®]
Waterstop
"The Original"



Preco[®]
Forming Accessories



PROVIDING PERFORMANCE PRODUCTS TO THE CONCRETE INDUSTRY FOR OVER 60 YEARS

Durajoint[®]
Concrete Accessories



Durajoint® PVC Waterstop is designed for use in concrete construction containing joints with one or more sides of the joint subject to hydrostatic pressure. Durajoint Waterstop is used as a barrier within the joint to prevent the passage of liquid through or across the joint. It spans the joint equally and is embedded in the concrete on both sides of the joint to accommodate lateral and transverse movement which can cause the joint to open, close, or misalign.

COMPOSITION AND MATERIAL Durajoint PVC Waterstop is extruded from an elastomeric plastic compound consisting of virgin polyvinyl chloride and additional resins, plasticizers and stabilizers to meet or exceed the requirements and performance criteria of the Corps of Engineers Specification CRC-C 572-74. Durajoint PVC Arctic Grade Waterstop is available to meet Ontario Hydro Standard M-264-81.

RIBBED TYPE WITH CENTERBULB

	HEAD OF WATER FT.	
Type 3 Type 3A Construction joints.	65	
Type 4 Construction joints. For higher heads of water or larger movement than Type 3.	100	
Type 4B Similar to Type 4, however tapered for economical but effective water stoppage.	100	
Type 5 Heavier duty than Type 4. Will resist displacement during concrete pour.	125	
Type 5A Similar to Type 5. Recommended for small dams and hydro projects.	125	
Type 5BR Extra heavy duty. Will also resist displacement during pour.	125	
Type 6 For large expansion joints in retaining walls or roof slabs.	150	
Type 7 For large heads of water – dams, major reservoirs, sewage plants or locks.	150+	
Type 7BR Use when extra movement in both shear and expansion is expected.	150+	
Type 7C Will accommodate extra movement in both expansion and shear.	150+	
Type 7D1 For larger heads of water – dams, reservoirs, sewage plants or locks with larger movement.	150+	

RIBBED TYPE WITH CENTERBULB

	HEAD OF WATER FT.	
Type 7F For large transverse and shear movements in major structures.	150+	
Type 8 For exceptionally high heads of water and application in major structures, dams, power houses, etc.	150+	
Type 9 Extra heavy duty for higher heads of water and will resist displacement during pour.	150	
Type 10 Will accommodate extra movement in both expansion and shear.	150	
Type 31 For extra high dams.	250+	
Type M3 Economical shape for use in expansion joints of 1" or less.	150	

SPLIT RIBBED TYPE WITH CENTERBULB

Type 300 Same as Type 3 but has one split flange.	65	
Type 400 Same as Type 4 but has one split flange.	100	
Type 500 Same as Type 5 but has one split flange.	125	
Type 700 Same as Type 7 but has one split flange.	150+	
Type 3100 For extra high dams.	250+	

DUMBBELL TYPE – SPLIT WITHOUT CENTERBULB

Type DB-200 For expansion joints 1/2" or less in width.	100	
Type DB-300 For expansion joints 1" or less in width.	100	

TYPE OF JOINTS

Working Joints – Large amount of movement occurs.

Non-Working Joints – Little or no movement occurs.

Control Joints – Purposely created planes of weakness to predetermine the location of a crack during the curing and contraction of concrete.

Expansion or Isolation Joint – Separates or isolates abutting concrete structures such as slabs, walls, or footings.

Construction Joints – Placed at the interruption in the placement of concrete.

RIBBED TYPE WITHOUT CENTERBULB

	HEAD OF WATER FT.	
Type 2 For construction joints.	65	
Type 11 Construction joints in foundation walls and footings where greater hydrostatic pressure is anticipated.	125	
Type 11A For deep embedment in construction and expansion joints where shear movement is not anticipated.	150	
Type 11B Durajoint flat ribbed waterstops are used in construction joints where little or no movement is expected. Found generally in below grade footings, walls and slabs.	100	
Type 11C	150	
Type 12 Construction joints in foundation walls and footings.	65	
Type 13 Construction joints in foundation walls and footings where greater hydrostatic pressure is anticipated.	125	
Type 14 For deep embedment in construction and expansion joints where shear movement is not anticipated.	150	
Type 15 Construction joints in foundation walls and footings.	125	

** Please note – In addition to PVC, all profiles are also available in TPER (chemical resistant) and Arctic Grade*

TYPES OF WATERSTOP

Ribbed w/ Centerbulb (RCB) – Most common and versatile type of waterstop. Used in expansion, contraction, and construction joints where a large amount of movement is expected. The greater amount of expected movement, the larger the centerbulb should be. Ribbed profiles provide better watertight sealing than non-ribbed profiles.

Ribbed w/o Centerbulb (RF) – Joints where little or no movement is expected.

Dumbbell w/o Centerbulb (DB) – Below-grade joints where little or no movement anticipated.

Dumbbell w/ Centerbulb (DCB) – Selected application where movement will be present.

Split Ribbed and Dumbbell – To eliminate split form work.

Baseal® Type Joint Seals – For on grade installation at the bottom of concrete slabs to prevent upward seepage of ground water through joints, or to waterproof joints at wall/slab junctions.

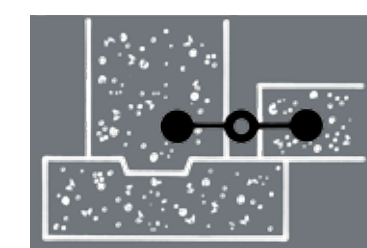
DUMBBELL TYPE WITHOUT CENTERBULB

	HEAD OF WATER FT.	
Type DB-1 For construction joints.	65	
Type DB-2 For expansion joints 1/2" or less in width.	100	
Type DB-3 For expansion joints 1" or less in width.	100	
Type DB-4 For expansion joints 1" or less in width.	100	
Type DB-5 For composition joints below grade where little or no movement is expected.	90	
Type DB-7 Same as Type DB-5 but will take higher head of water.	100	
Type DB-8 Economical shape for construction joints below grade.	65	

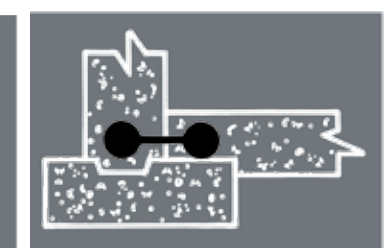
DUMBBELL TYPE WITH CENTERBULB

Type DB-6 For expansion joints up to 1-1/2" in width. Will accommodate both transverse and longitudinal movements.	150	
Type DB-9 For expansion joints 1" or less in width.	100	
Type DB-10 For horizontal and vertical expansion joints where reinforcing steel does not allow use of 9" waterstop.	125	
Type DB-11 To be used in large pours with expected movements, floodwalls, large treatment plants.	150	

EXPANSION JOINTS



CONSTRUCTION JOINTS



NOTE: Head pressure ratings are for reference only. Actual ability to resist head pressure depends on the quality of concrete and placement.

POST-APPLIED RETRO-FIT KITS

Designed to attach new concrete structure to existing concrete. Providing watertight joint with limited movements.

Type 36RT Kit Includes: 10 ft piece Type 36 2-10 ft stainless steel baton bars w/ SS anchor bolts	
Type 18RT Kit Includes: 10 ft piece Type 18 2-10 ft stainless steel baton bars w/ SS anchor bolts	
Type 12RT Kit Includes: 10 ft piece Type 12 2-10 ft stainless steel baton bars w/ SS anchor bolts	
Type 9RT Kit Includes: 10 ft piece Type 9 2-10 ft stainless steel baton bars w/ SS anchor bolts	
Type 29RT Kit Includes: 10 ft piece Type 29 1-10 ft stainless steel baton bar w/ SS anchor bolts	
Type 29A-RT Kit Includes: 10 ft piece Type 29A 1-10 ft stainless steel baton bar w/ SS anchor bolts	

BASEAL® TYPE JOINT SEALS

Type 60 For construction joints in slabs and walls.	
Type 60A For construction joints in slabs and walls	
Type 61 Heavy duty for construction joints in slabs and walls.	
Type 62 Heavy duty for expansion joints.	
Type 66 Base seal for wall and slab construction joints.	
Type 70 Base seal for wall and slab construction joints.	

CRACK INDUCERS

Type 55CI 6" x 1-5/8"	HEAD OF WATER FT. 100	
Type 325CI 9-27/32" x 2-35/64"	150	
SPECIAL SHAPES		
Type 16 Bridge deck joint to meet California State Hwy. Dept. specifications.	NA	
Type 17 For greater embedment in construction joints or thin walls and slabs.	50	
Type 27 For construction joints on highways and bridges.	NA	
Type 28 For construction joints on highways and bridges.	NA	

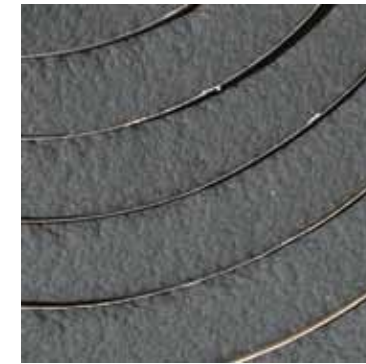
Typical Properties (PVC) (CRD-C-572-74)

Property	Test Method	Requirement Limits
Tensile Strength	ASTM D638	2000 psi (13.3 MPa)
Ultimate Elongation	ASTM D638	350%
Specific Gravity	ASTM D792	1.38
Stiffness in Flexure	ASTM D747	700 psi min.
Tear Resistance	ASTM D624	300 lbs./in. min.
Ozone Resistance	ASTM D1149	Passed
Low Temperature Brittleness	ASTM D746	No Cracking, Brittleness or Splitting at -35°F/-37°C
Hardness Shore A15	ASTM D2240	79+/-3
Water Absorption	ASTM D570	0.15% max
Accelerated Extraction	CRD-C 572	
Ultimate Elongation	Par 7.1	300% min.
Tensile Strength	Par 7.1	1600 psi min.
Effects of Alkalies	CRD-C 572	
Loss Weight	Par 7.2	0.10% Max.
Gain Weight	Par 7.2	0.25% Max.
Hardness Change		+/-5 Points

Suggested Specification

All waterstop shall be **Durajoint® PVC Waterstop** as manufactured by Durajoint® Concrete Accessories. It shall be an extrusion of virgin polyvinyl chloride and additional resins, plasticizers and stabilizers which meet or exceed the performance values of the Corps of Engineers specifications. Profile types and dimensions of the waterstops shall be those shown in the project specifications.

Durajoint EXPAND-Tite Hydrophilic Waterstop



Durajoint EXPAND-Tite is a flexible concrete construction joint waterstop that is easy to install in **non-moving joints**. It is composed of bentonite clay and butyl rubber to withhold its physical integrity after expanding.

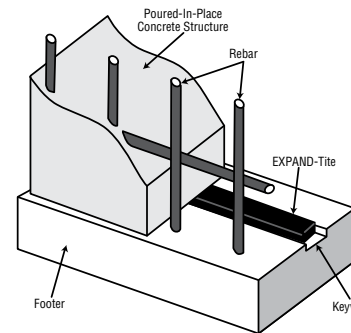
EXPAND-Tite expands in a controlled fashion when exposed to moisture and will not expand beyond a point where the hydration process reduces the effectiveness of the waterstop.

When installing EXPAND-Tite the concrete surface needs to be dry and free of contamination. EXPAND-Tite Primer is also recommended before the placement of the waterstop.



Typical Physical Properties

Description	Method	EXPAND-Tite
Color		Black
Specific Gravity	ASTM D-71	1.35+/-5
Hydrocarbon Content	ASTM D-4	47% min.
Volatile Matter	ASTM D-6	1% max
Penetration, cone @77°F, 150gm; 5 sec	ASTM D-217	40 +/-5
Application Temp.		-10° to 125°F (-22° to 52°C)
Service Temp.		-30° to 180°F (-34° to 82°C)



Available in three sizes:
Part #EXP100 (Cetco RX101)
 3/4" x 1" x 16'8" roll (6 rolls/carton)
 - 100 linear ft./carton
Part #EXP150 (Cetco RX101T)
 1/2" x 1-1/4" x 16'8" roll (6 rolls/carton)
 - 100 linear ft./carton
Part #EXP200 (Cetco RX102)
 3/8" x 3/4" x 25' roll (8 rolls/carton)
 - 200 linear ft./carton

Durajoint SEAL-Tite Non-Hydrophilic Waterstop



Durajoint SEAL-Tite is a flexible concrete construction joint waterstop that is easy to install. SEAL-Tite will not shrink, oxidize, or harden with age and is rugged in temperatures from 30°F to +200°F.

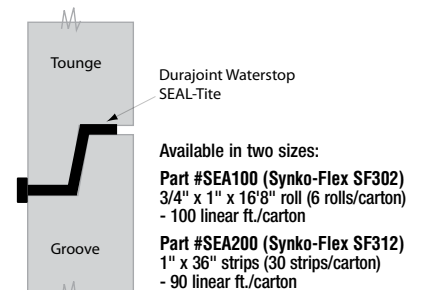
When installing SEAL-Tite the concrete surface needs to be clean, dry and free of contamination.

SEAL-Tite Primer is also recommended when; installing on wet concrete, when temperatures are below 40°F, in vertical joints.

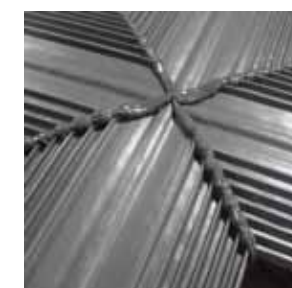


Typical Physical Properties

Description	Method	SEAL-Tite
Color		Black
Specific Gravity	ASTM D-71	1.35-1.40
Penetration, CONE @77°F	ASTM D-217	60-70 mm
Flash Point, C.O.C., °F	ASTM D92	450°F (232°C) min.
Fire Point, C.O.C., °F	ASTM D92	450°F (232°C) min.
Ductility, 77°F	ASTM D113	>10.0 cm



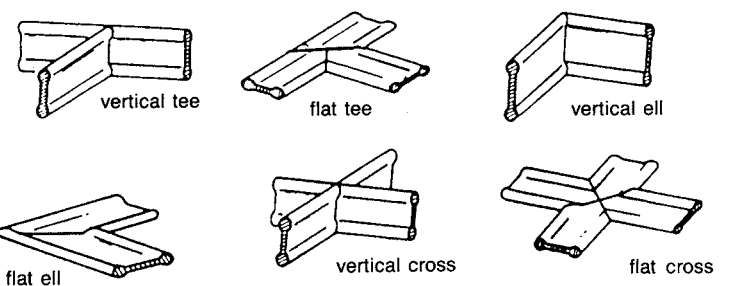
Available in two sizes:
Part #SEA100 (Synko-Flex SF302)
 3/4" x 1" x 16'8" roll (6 rolls/carton)
 - 100 linear ft./carton
Part #SEA200 (Synko-Flex SF312)
 1" x 3/8" strips (30 strips/carton)
 - 90 linear ft./carton



Factory Made Splices Available on Request

Factory prefabricated 100% spark tested for quality assurance

- Flat Cross & Vertical Cross
- Vertical Tee & Flat Tee
- Flat Ell & Vertical Ell



For additional waterstop profiles, including custom splices, please contact Durajoint Concrete Accessories @ 888-833-8308.

DESCRIPTION	PCS. / CTN.
Preco® Rebar Safety Cap - OSHA #3 - #8 Bar <i>(exclusive patented multi-reuse feature)</i>	100
Preco® Mushroom Caps	500
Preco® Chamfer - PVC 3/4" x 350LF 1" x 170LF <i>(Additional sizes & types available)</i>	350LF 170LF
Preco® Slab/Beam Bolsters - Plastic 3/4" x 30" 1" x 30" 1-1/2" x 30" 2" x 30" 2-1/2" x 30" 3" x 30" <i>(Additional sizes available)</i>	80 80 55 40 40 32
Preco® Slab On Grade Chairs (SOG) SOG20 1-1/2" - 2" SOG30 2-1/2" - 3" <i>(Additional sizes available)</i>	1000 240
Preco® Uni-Chairs UNI15 1" - 1-1/2" UNI25 2" - 2-1/2" UNI35 3" - 3-1/2" UNI45 4" - 4-1/2" <i>(Additional sizes available)</i>	250 250 300 200
Preco® High Stack Chairs HIC20 2" HIC30 3" <i>(Additional sizes available)</i>	250 200
Preco® Clips - Rebar & Mesh 1" H-Clip, #4 - #6 1-1/2" K-Clip, #4 - #6 2" M-Clip, #4-#6 2" Barspan Clip, Mesh - #9 <i>(Additional sizes & types available)</i>	3000 2500 1000 1000
Preco® Wheels - Rebar & Mesh 1" W14MN, Mesh - #5 1-1/2" W84MN, Mesh - #3 1-1/2" W1534, #3 - #4 2" W97MN, #4 - #6 <i>(Additional sizes & types available)</i>	1000 500 500 250
Preco® Board Cap - Zip Strip 1/2" x 10LF 1" x 10LF	500LF 500LF
Preco® Debonding Sheathing Slit Sheathing Non-Slit Sheathing <i>(2000LF Continuous Reels Available)</i>	2500LF 1750LF 2000LF
Preco® T-Strip 1" x 10LF <i>(Additional sizes available)</i>	500LF

DESCRIPTION	PCS. / CTN.
Durajoint® SEAL-Tite, Non-Hydrophilic Waterstop SEA100 3/4" x 1" x 16'-8" (100LF) ~ Synko-Flex SF30 SEA200 1" x 36" (90LF) ~ Synko-Flex SF312	6 rolls 30 strips
Durajoint® EXPAND-Tite, Non-Hydrophilic Waterstop EXP100 3/4" x 1" x 16'-8" (100LF) ~ Cetco RX101 EXP150 1/2" x 1-1/4" x 16'-8" (100LF) ~ Cetco RX101T EXP200 3/8" x 3/4" x 25' (200LF) ~ Cetco RX102	6 rolls 6 rolls 8 rolls
Preco® Chamfer - PVC Starting at 3/4" <i>(see description and photo on preceding page)</i>	
Preco® Slab/Beam Bolsters - Plastic Starting at 3/4" <i>(see description and photo on preceding page)</i>	
Preco® Panel Pads 2-1/2" x 6" x 7/16" <i>(Additional sizes and types available)</i>	400
Preco® Chain Guard 4 1/4" Wide <i>(Additional sizes available)</i>	200
Preco® Rebar (EAR) & Mesh (EAM) Chairs EAR15 1- 1/2" EAR20 2" EAM10 1" EAM15 1-1/2" <i>(Additional sizes & types available)</i>	1000 500 1000 1000
Preco® Shims 3.5" x 1-1/2" x 1/4" x 1/16" (wedge shim) 2" x 2" x 1/2" 3" x 3" x 1/4" 6" x 4" Shim Pack (3 - 1/4", 2 - 1/8", 1 - 1/16") Custom Shim Packs <i>(Additional sizes & types available)</i>	1000 500 500 50 Pallet
Preco® High Stack Chairs Starting at 2" <i>(see description and photo on preceding page)</i>	
Preco® Clips - Rebar & Mesh Starting at 1" <i>(see description and photo on preceding page)</i>	
Preco® Wheels - Rebar & Mesh Starting at 1" <i>(see description and photo on preceding page)</i>	
Preco® Debonding Sheathing Slit and Non-Slit Sheathing <i>(see description and photo on preceding page)</i>	





When failure is not an option, always use...



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Waterstop
"The Original"

and



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