









PROVIDING PERFORMANCE PRODUCTS TO THE CONCRETE INDUSTRY FOR OVER 60 YEARS





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

<b>_</b>		
	HEAD OF WATER FT.	
Type 3 Type 3A Construction joints.	65	3/16° + 1/2° 0.0. CH2M-HILL 1/2° 0.0. 4° 3/16° + 1/8°
Type 4 Construction joints. For higher heads of water or larger movement than Type 3.	100	6 ————————————————————————————————————
Type 4B Similar to Type 4, however tapered for economical but effective water stoppage.	100	NEW YORK TYPE A  6  1/8  3/16  1/2" O.D.
Type 5 Heavier duty than Type 4. Will resist displacement during concrete pour.	125	4 1/4 3/8 5/8" O.D.
Type 5A Similar to Type 5. Recommended for small dams and hydro projects.	125	ONTARIO-HYDRO 6"  3/4" 9/32" 3/8" 5/8" 0.D.
Type 5BR Extra heavy duty. Will also resist displacement during pour.	125	BUREAU OF RECLAMATION  3/16" 1/8" 11/16" O.D.  3/8" 6" 3/8" I.D.
Type 6 For large expansion joints in retaining walls or roof slabs.	150	9 ————————————————————————————————————
Type 7 For large heads of water – dams, major reservoirs, sewage plants or locks.	150+	† 1
Type 7BR Use when extra movement in both shear and expansion is expected.	150+	BUREAU OF RECLAMATION  9"  1.D. 7/8"  0.D. 1-1/2"  3/8"  1/4"  1/4"
Type 7C Will accommodate extra movement in both expansion and shear.	150+	9°
Type 7D1 For larger heads of water – dams, reservoirs, sewage plants or locks with larger movement.	150+	9° 1/4° 1 1/2° IDJ 27/8° OD

### RIBBED TYPE WITH CENTERBULB

	HEAD OF WATER FT.		
Type 7F For large transverse and shear movements in major structures.	150+	9° 1-1/2 5/16° 3/8° 22-1/4° 0.0.	
Type 8 For exceptionally high heads of water and application in major structures, dams, power houses, etc.	150+	ONTARIO-HYDRO	
Type 9 Extra heavy duty for higher heads of water and will resist displacement during pour.	150	MONTGOMERY ENG 6°  3/8° 3/8° 1.D., 7/8° 0.D.	
Type 10 Will accommodate extra movement in both expansion and shear.	150	MONTGOMERY ENG  3(8' 9' 5/8'  CH2M-HILL 1/2' L.D., 1' 0.D. 4	
Type 31 For extra high dams.	250+	12° 12° 12° 17° 0.0. 58° 10.	
Type M3 Economical shape for use in expansion joints of 1" or less.	150	9"	
SPLIT RIBBED TY	PE WITH	CENTERBULB	
Type 300 Same as Type 3 but has one split flange.	65	4"	
Type 400 Same as Type 4 but has one split flange.	100	6.	
Type 500 Same as Type 5 but has one split flange.	125	6° +   + 1/4°	
Type 700 Same as Type 7 but has one split flange.	150+	9"	
<b>Type 3100</b> For extra high dams.	250+	12"————————————————————————————————————	
DUMBBELL TYPE-SPLIT WITHOUT CENTERBULB			
Type DB-200 For expansion joints 1/2" or less in width.	100	3/8"	
Type DB-300 For expansion joints 1" or	100	3/8" 9"	

For expansion joints 1" or 100 less in width.

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

#### 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	3/16
Type 11 Construction joints in foundation walls and footings where greater hydrostatic pressure is anticipated.	125	MONTGOMERY ENGRG.
Type 11A  For deep embedment in construction and expansion joints where shear movement is not anticipated.	150	9° 1/8° 5/4  3/8°
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	MONTGOMERY ENGRG.  1/8° 3/16°  ↑ 5/16° → 1 → 7/16°
Type 11C	150	MONTGOMERY ENGRG.  1/8°  3/16°  ↓  5/16° →   → 7/16
Type 12 Construction joints in foundation walls and footings.	65	3/16" 6"
Type 13 Construction joints in founda- tion walls and footings where greater hydrostatic pressure is anticipated.	125	3/8° 6° • • • • • • • • • • • • • • • • • •
Type 14  For deep embedment in construction and expansion joints where shear movement is not anticipated.	150	9" 3/8" 1/2
Type 15 Construction joints in foundation walls and footings.	125	1/8" 6" 3/8"

\* 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.

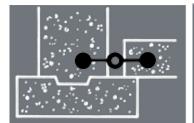
Baseal® Type Joint Seals – For on grade installation at the bottom of concrete slabs to prevent upward seepage of ground water through joints, or to waterproof joints at wall/ slab junctions.

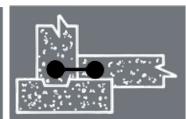
#### **DUMBBELL TYPE WITHOUT CENTERBULB**

	HEAD OF WATER FT.	
Type DB-1 For construction joints.	65	5°
Type DB-2 For expansion joints 1/2" or less in width.	100	3,8"
Type DB-3 For expansion joints 1" or less in width.	100	9"
Type DB-4 For expansion joints 1" or less in width.	100	38" 9"
Type DB-5 For composition joints below grade where little or no movement is expected.	90	3/16" 6"
Type DB-7 Same as Type DB-5 but will take higher head of water.	100	1/4"
Type DB-8 Economical shape for construction joints below grade.	65	3/16'
DUMBBELL TYPE	WITH CE	NTERBULB
Type DB-6 For expansion joints up to 1-1/2' in width. Will accommodate both transverse and longitudinal movements.	150	9° • • • • • • • • • • • • • • • • • • •
Type DB-9 For expansion joints 1" or less in width.	100	3/8° 9° 1/2° 1/2° 1/2° 1/2° 1/2° 1/2° 1/2° 1/2
Type DB-10 For horizontal and vertical expansion joints where reinforcing steel does not allow use of 9" waterstop.	125	1/4" 6" 5/8" 1-1/8" 0.D.
Type DB-11 To be used in large pours with expected movements, floodwalls, large treatment plants.	150	3/8° 9° 1" 1" 2°1.D. 1" 2°3.4° 0.D.

#### **EXPANSION JOINTS**

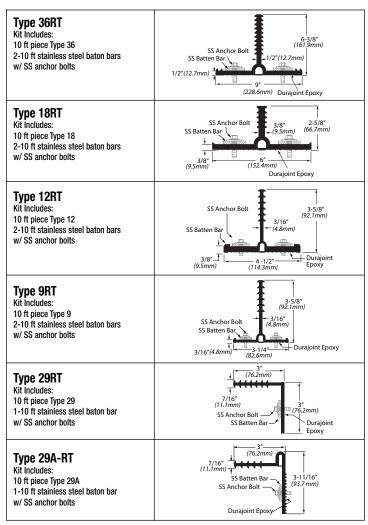
#### **CONSTRUCTION JOINTS**





#### POST-APPLIED RETRO-FIT KITS

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



### BASEAL® TYPE JOINT SEALS

Type 60 For construction joints in slabs and walls.	7-1/4"
Type 60A For construction joints in slabs and walls	NEW YORK TYPE E
Type 61 Heavy duty for construction joints in slabs and walls.	9. 13/16.
Type 62 Heavy duty for expansion joints.	<b>★</b> 3/16° <b>★ 1 1 1 1 1 1 1 1 1 1</b>
Type 66 Base seal for wall and slab construction joints.	1/8" 9/16" A
Type 70 Base seal for wall and slab construction joints.	3/4" (19.2mm) (228.6mm) (19.2mm) (3-1/2" (88.9mm) (88.9mm) (203.2mm) (203.2mm)

### **CRACK INDUCERS**

	HEAD OF WATER FT.	
<b>Type 55CI</b> 6" x 1-5/8"	100	1/2"(12.7mm) + 1-3/16"(30.2mm) 1/2"(12.7mm) + 1-5/8"(41.3mm) (3.2mm) ± 6"(152.4mm)
<b>Type 325CI</b> 9-27/32" x 2-35/64"	150	1-31/32" 13/64" 2-35/64" 45/64" (50mm) (65mm) (18mm) (18mm) (18mm) (250mm) (250mm)
SPECIAL SHAPES		
Type 16 Bridge deck joint to meet California State Hwy. Dept. specifications.	NA	1/8' 1/16' 1
Type 17 For greater embedment in construction joints or thin walls and slabs.	50	9"
Type 27 For construction joints on highways and bridges.	NA	TEAR WER
Type 28 For construction joints on highways and bridges.	NA	1/8' 9'

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

Property	Test Method	<b>Requirement Limits</b>
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 Ultimate Elongation Tensile Strength	CRD-C 572 Par 7.1 Par 7.1	300% min. 1600 psi min.
Effects of Alkalies Loss Weight Gain Weight Hardness Change	CRD-C 572 Par 7.2 Par 7.2	0.10% Max. 0.25% Max. +/-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**



Waterstop

**EXPAND-Tite** 

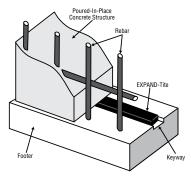
Durajoint EXPAND-Tite is a flexible concrete construction joint waterstop that is easy to install in non-moving joints. It is composed of bentonite clay and butyl rubber to withhold its physical integrity after expanding.

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.

**Durajoint SEAL-Tite** is a flexible

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)

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**®

Waterstop

**SEAL-Tite** 

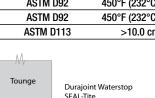
concrete construction joint waterstop that is easy to install. **SEAL-Tite** will not shrink, oxidize, or harden with age and is rugged in temperatures from 30°F to +200°F.

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

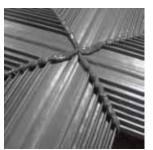




Available in two sizes:

Part #SEA100 (Synko-Flex SF302) 3/4" x 1" x 16'8" roll (6 rolls/carton) - 100 linear ft./carton

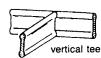
Part #SEA200 (Synko-Flex SF312) 1" x 36" strips (30 strips/carton) - 90 linear ft./carton

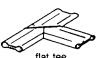


## Factory Made Splices Available on Request

Factory prefabricated 100% spark tested for quality assurance

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

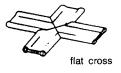












For additional waterstop profiles, including custom splices, please contact Durajoint Concrete Accessories @ 888-833-8308.



























# Popular Cast-In-Place Products

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

# Popular Precast Products



DESCRIPTION		PCS. / CTN.
Durajoint® SEAL-Tite, Non-Hydrophili	c Waterstop	
SEA100 3/4" x 1" x 16'-8" (100LF) ~ Syl	•	6 rolls
SEA200 1" x 36" (90LF) ~ Synko-Flex S	F312	30 strips
Durajoint® EXPAND-Tite, Hydrophilic	: Waterstop	
EXP100 3/4" x 1" x 16'-8" (100LF) ~ Ce	tco RX101	6 rolls
EXP150 1/2" x 1-1/4" x 16'-8" (100LF)	~ Cetco RX101T	6 rolls
EXP200 3/8" x 3/4" x 25' (200LF) ~ Cet	co RX102	8 rolls
Preco® Chamfer - PVC		
Starting at 3/4"	(see description and p	hoto on proceeding pag
Preco® Slab/Beam Bolsters - Plastic		
Starting at 3/4"	(see description and p	hoto on proceeding pag
Preco® Panel Pads		
2-1/2" x 6" x 7/16"		400
(Additional sizes and types available)		
Preco® Chain Guard		
4 1/4" Wide		200
(Additional sizes available)		
Preco® Rebar (EAR) & Mesh (EAM) C	hairs	
EAR15 1- 1/2"		1000
EAR20 2"		500
EAM10 1"		1000
EAM15 1-1/2"		1000
(Additional sizes & types available)		
Preco®Shims		
3.5" x 1-1/2"" x 1/4" x 1/16" (wedge sh	im)	1000
2" x 2" x 1/2"		500
3" x 3" x 1/4" 6" x 4" Shim Back (2, 1/4", 2, 1/9", 1, 1	1/16"\	500
6" x 4" Shim Pack (3 -1/4", 2 - 1/8", 1 - 1 Custom Shim Packs	1/10 )	50 Pallet
(Additional sizes & types available)		ranet
Preco® High Stack Chairs		
Starting at 2"	(see description and p	hoto on proceeding pag
Preco® Clips - Rebar & Mesh		
Starting at 1"	(see description and p	hoto on proceeding pag
Preco® Wheels - Rebar & Mesh		
Starting at 1"	(see description and p	hoto on proceeding pag
Preco® Debonding Sheathing		
Slit and Non-Slit Sheathing	(see description and p	hoto on proceeding pag















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





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Waterstop • Forming Accessories • Rebar Supports • Mesh Supports • Prestressed Accessories