

Wabo® XPE

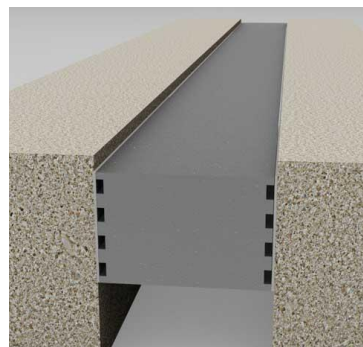
Preformed impermeable UV stable gray foam joint seal

Features	Benefits
• Simplicity	Minimal components and flexibility of seal allows for quick joint repairs and short traffic closures.
• Versatile movement	Working range of 30% tension and 60% compression
• Chemically resistant	Resistant to abrasion, oxidation oils, gasoline and salts
• Nitrogen blown, closed cell foam construction	Cells collapse and elongate during movement cycle so the seal does not get larger in cross section. Seal can be installed close to top of riding surface; thus, minimizing debris accumulation. No additional processing in foam seal manufacturing is required to assure the seal is watertight.

DESCRIPTION:

Wabo®XPE is a preformed, impermeable, UV stable gray foam joint seal that is bonded into place with an epoxy adhesive.

The low density, closed cell cross-linked nitrogen blown joint seal contains no EVA (ethylene vinyl acetate). Wabo®XPE is designed to accommodate various movements and variations in joint widths through compression and tension with a working range of 60% compression and 30% tension. The bond strength of the joint seal is enhanced through manufactured grooves, spaced along the seal edges.



RECOMMENDED FOR:

- Sealing expansion joints on bridges and highways
- Repair and maintenance of existing joints – horizontal and vertical
- Expansion joints with varying joint widths
- Noise walls and barriers
- Flood channels

PACKAGING/COVERAGE:

- Maximum shipping lengths:

Width	Max Length
1" to 1.25"	100 ft
1.625" to 3.75"	50 ft
4" to 4.50"	25 ft

- Wabo®Foam Seal Bonder Adhesive (Gray) is a 2 part gray 3:1 epoxy adhesive.

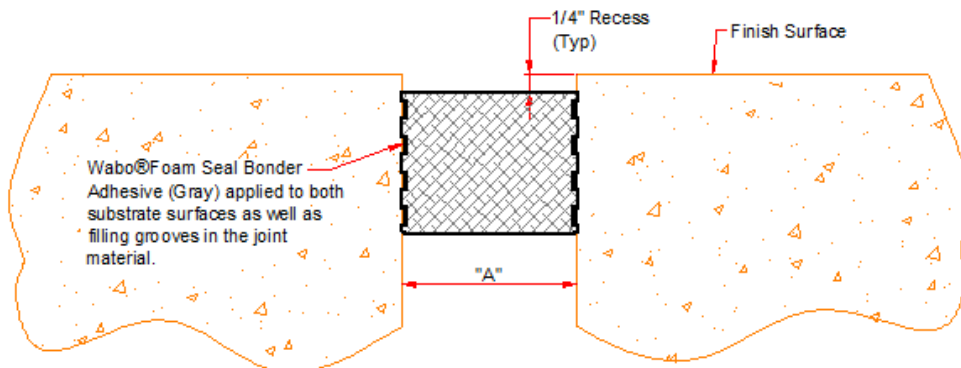
Volume	Container
Part A (3 quarts)	1 Gallon
Part B (1 quart)	1 quart

Seal Depth	Adhesive Yield
2"	50 LF 15.2 m
2.5"	65 mm 40 LF 15.2 m
3"	75 mm 35 LF 10.7 m
3.5"	90 mm 30 LF 9.1 m

TECHNICAL DATA:

Design Information

The seal shall be designed with a movement working range of 60% compression and 30% tension. Depth of seal shall not be less the 70% of its uncompressed width. Seal shall be manufactured with groove sidewalls 1/8" (3mm) wide by 1/8" deep (3mm) and spaced between 1/4" (6mm) to 1/2" (13mm) apart and run along the entire length of the bond surfaces of the seal to ensure an effective and quality surface for adhesion.



Movement Table

SEAL SIZE		JOINT OPENING "A" @ MIDRANGE TEMPERATURE		JOINT OPENING "A" RANGE					
				MIN.		MAX.		TOTAL	
MODEL NO.	Width x Height	in	Mm	in	mm	in	mm	in	mm
XPE 1250	1.25" x 2"	1.0	25	0.50	12	1.63	41	1.13	29
XPE 1375	1.375" x 2"	1.125	29	0.55	14	1.79	45	1.24	31
XPE 1625	1.625" x 2"	1.375	35	0.65	17	2.11	54	1.46	37
XPE 2000	2" x 2"	1.625	42	0.80	20	2.60	66	1.80	46
XPE 2375	2.375" x 2"	2.00	51	0.95	24	3.09	78	2.14	54
XPE 2500	2.5" x 2"	2.125	54	1.00	25	3.25	83	2.25	57
XPE 2750	2.75" x 2"	2.375	61	1.10	28	3.58	91	2.48	63
XPE 3000	3" x 2.5"	2.50	64	1.20	30	3.90	99	2.70	69
XPE 3250	3.25" x 2.5"	2.75	70	1.30	33	4.23	107	2.93	74
XPE 3500	3.5" x 2.5"	3.00	75	1.40	36	4.55	116	3.15	80
XPE 3750	3.75" x 3"	3.125	80	1.50	38	4.875	124	3.375	86
XPE 4000	4 x 3	3.375	86	1.60	41	5.20	132	3.60	91
XPE 4500	4.5" x 3"	3.75	96	1.80	46	5.85	149	4.05	103
XPE 5000	5" x 3.5"	4.25	108	2.00	51	6.50	165	4.50	114

NOTE: Seal chart shows standard sizes. Made to order seal sizes are available. Contact WBA with your project requirements.

PHYSICAL PROPERTIES:

Seal Profile - Wabo® XPE profile is a UV stable joint seal that consists of an impermeable closed cell, cross-linked, low density polyethylene non-extrudable foam material.

PHYSICAL PROPERTIES	ASTM TEST METHOD	REQUIREMENTS
Color		Gray
Tensile Strength	D3575, Suffix T	110-130 psi
Compression Set (22 hrs @ 158°F)	D1056, Suffix B 2 hour recovery	10-16%
Water Absorption (by weight)	D3575 Suffix L	<0.03 lbf/ft ²
Elongation @ Break	D3575	180-210%
Tear Strength	D3575 Suffix G	14-20 lbf/in
Density	D3575 Suffix W	1.8-2.2 lbf/ft ³
Toxicity	ISO-10993.5	Pass (not cytotoxic)

Adhesive - Wabo® FoamSeal Bonder Adhesive (Gray) is a 100% solids, two component moisture insensitive modified epoxy adhesive which meets ASTM C-881 Type I and II Grade 2 Class B&C.

PHYSICAL PROPERTIES	PART A	PART B	MIXED
Color	White	Black	Gray
Shelf Life	2 yrs	2 yrs	N/A
Mixing ratio (vol:vol)	3 parts	1 part	3:1
Specific Gravity	1.47	1.15	N/A
Density	12.2 lbs/gal	9.6 lbs/gal	N/A
Viscosity	22,000 cps	33,000 cps	26,000 cps
Pot Life	N/A	N/A	32-36 minutes
Initial Set (@77°F)	N/A	N/A	1.5-2 hours
Initial Cure (@77°F)	N/A	N/A	8-12 hours
Full Cure (@77°F)	N/A	N/A	7 days

PHYSICAL PROPERTIES	ASTM Test Method	REQUIREMENTS
Compressive Strength	D695	7,000 psi (48 MPa)
Tensile Strength	D638	3,000 psi (20 MPa)
Elongation at Break	D638	5% max
Shore D Hardness	D2240	75
Water Absorption, by the weight	D570	0.25% max
Bond Strength	C882	2,000 psi (13 MPa)

APPLICATION:

INSTALLATION SUMMARY:

- **Newly placed concrete** - The concrete joint interface must be dry and clean (free of dirt, coatings, rust, greases, oil and other contaminants), sound and durable. New concrete must be cured (minimum of 14 days).
- **Aged Concrete** - The blockout should be of sound concrete. Loose, contaminated, weak, spalled, deteriorated concrete must be removed to sound concrete and repaired prior to placement. Any spalling, voids or structural cracking at the joint interface must be repaired.
- **Steel:** steel substrates should be sound, steel surfaces must be abrasive blasted SP-10 near white, immediately prior to installation.
- Measure the joint opening width. The nominal width of the seal should be 25% larger than the joint opening.
- Measure and cut to exact length needed for continuous joint, being careful not to pull or stretch the seal.
- Tape off the deck or area surrounding where epoxy will be used to assist with clean up.

- When mixing epoxy do not split units. Apply mixed Wabo®FoamSeal Bonder by hand with rubber gloves. Coat both sides of the joint opening. Apply enough material to fill the grooves on each side of the seal.
- Use Wabo® Concrete Cleaner to remove excess epoxy off the seal
- The seal should be installed ¼" below grade.
- Clean all excess epoxy from the edges of the joint opening and from the top of the seal as soon as it is pushed into the desired depth. **DO NOT allow the epoxy to cure before removing it.**

FOR BEST RESULTS:

- Repair any spalls, voids, or structural cracking at the joint interface.
- Do not install if the joint's anticipated movement will exceed the seal's movement range.
- Do NOT allow any of the components to freeze prior to installation. Store all components out of direct sunlight in a dry location between 50°F (10°C) and 90°F (32°C). DO NOT store in high humidity.
- Shelf life of the Wabo®FoamSeal Bonder is 2 years

- Periodically inspect the applied material and repair localized areas as needed. Consult a Watson Bowman Acme representative for additional information.
- Make certain the most current version of the product data sheet is being used. Please consult the website (www.watsonbowmanacme.com) or contact a customer service representative.
- Proper application is the responsibility of the user. Field visits by Watson Bowman Acme personnel are for the purpose of making technical recommendations only.

OPTIONS/EQUIPMENT:

- Heating splice iron for Wabo®XPE joint seal profile.
- Wabo®GelAdhesive with Well Made AG400 caulking gun in lieu of Wabo®Foam Seal Bonder Adhesive (Gray).

RELATED DOCUMENTS:

- Wabo®XPE Specification
- Wabo®XPE Sales Drawings
- Wabo®XPE Installation Procedure
- Wabo®XPE Technical Datasheet
- Wabo®XPE Fact SheetWabo Foam Bonder SDS