

DUROSEAL PASTE TYPE E

SPECIFICATION DATA & PROCESSING INFORMATION



1. PRODUCT NAME

Duroseal Paste Type E

A one-component expanding paste based on polyurethane, suitable for the permanent sealing of construction joints in concrete structures.

2. MANUFACTURER

BBZ USA, Inc.
3400 Tree Court Industrial Blvd.
St. Louis, MO 63122 USA
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3. PROPERTIES

On contact with water, cured ***Duroseal Paste Type E*** swells and seals the construction joint against water penetration. An increase in volume of up to around 250% is produced by storage of water in the paste's molecular structure.

Duroseal Paste Type E is supplied in ready to use cartridges. The substrate must be free of grease, dust and loose particles. Do not apply on frozen surfaces. A minimum of 24 hours is required for hardening prior to concreting. During this time, the paste should be protected from premature swelling. When concreting, take care to ensure that the expanding paste is fully covered by concrete.

4. PROCESSING

Duroseal Paste Type E can be applied with a suitable hand-held caulking gun.

Puncture and lift the double layer bottom of the cartridge, remove the pellets.

Puncture the opening of the cartridge and free entire cross section.

Cut the nozzle diagonally to obtain an opening of 6-10mm and place the cartridge in the caulking gun.

Direct the caulking gun along the surface at an angle of 45° extruding paste evenly and press the paste bead against the substrate.

For large jobs and ease of application we recommend pneumatic guns or mechanical guns with high gear.

Processing temperature is 41°F to 104°F. Low temperatures will render more difficult to extrude and retard the hardening process of the paste. During cold weather we recommend to store the paste in warm conditions prior to use.

Layer thickness usually runs 5-10mm.

Yield, depending on substrate, is approximately 5m per 310ml cartridge.



5. FIELD OF APPLICATION

- ✓ Construction joints of every kind.
- ✓ Junctions between concrete & steel girders.
- ✓ Connecting joints in sheet piling or diaphragm walls.
- ✓ Sealing of bell butt joints.
- ✓ Wall penetration for metal, plastic and concrete pipes, cable bushing.
- ✓ Bonding of DUROSEAL swelling waterstops on very uneven or rough surfaces. DUROSEAL swelling waterstops are pressed strongly into the paste bead.

6. PACKING SIZE

310 ml cartridge
6 cartridges per carton
147 cartons per pallet

On special request:

600 ml sausage
12 sausages per carton

7. STORAGE

Shelf life of 9 months if stored at 41°F to 77°F.



7. IMPORTANT

Never apply product on frozen surface!

Apply product 24 hours before concrete to give sufficient time to harden!

Protect product against rain to avoid premature swelling!

Test Liquid	Stability	Swelling
Unleaded fuel	resistant/ discoloring	~ 46%
Gasoline	resistant / discoloring	~ 2%
Toluene	resistant	~ 143%
Xylene	resistant	~ 85%
Methanol 50%	resistant	~ 405%
Isopropanol 50%	resistant	~ 500 %
N-methylpyrrolidone	resistant / discoloring	~ 618%
Ethylacetate	resistant	~ 195%
Methylisobutylketon	resistant	~ 87%
Acetic acid 10 %	limited resistance	~ 150%
Formol 36%	resistant	~ 500%
Sulphuric acid 10 %	resistant	~ 193%
Sulphuric acid 20 %	resistant	~ 231%
Sodium chloride 26 %	resistant	~ 25%

Uncured Material		
Viscosity	Gel/paste	
Specific gravity (20° C)	1.57	ASTM D1638
Vertical slump (20° C)	3 mm	
Tach-free (20° C, 60 % R.H.)	12 hours	
Flash point	265° F	ASTM D-93
Corrosiveness	Non-corrosive	
Cure time (minimum)	12 hours	
Cured Material (3 days at 20° C)		
Shore hardness	39-A	ASTM D 2240
Tensile strength	265 psi	ASTM D 3574-86
Elongation	625%	ASTM D 3574-86
Tearing strength	176 psi	ASTM D 790
(Swelling) expansion (in water)	≥ 250%	
Degree of swelling (1 + expansion/100)	≥ 3.5	
Toxicity	Non-toxic	
Corrosiveness	Non-corrosive	
Solubility in water	Non soluble	
Storage	9 months	
Storage temperature	41°F to 77°F	
Content	310 ml (10.5 oz.)	
Swelling expansion pH = 7 pH = 13	380 % (9 days) 580 % (3 days)	