



TECHNICAL DATA SHEET

PE-45



POLYUREA JOINT SEALANT

PE-45 is a two-component, 1:1 ratio, aromatic, rapid setting, self leveling, polyurea polyurethane, 50 Shore A caulking compound for interior application.

APPLICATIONS

PE-45 is used on interior concrete surfaces, to repair random cracks, control joints, and other areas where down time is limited. PE-45 will discolor in exterior applications:

- Airports
- Bridge Headers
- Food Processing Plants
- Freezers & Cold Storage
- Grade Matching
- Parking Garage Decks
- Saw/Utility Cuts
- Water Treatment Plants

ADVANTAGES

- Downtime 30-90 minutes
- Flexible
- Meets USDA criteria
- Meets VOC regulations
- Non-toxic
- Odorless
- Remains flexible, even in cold temperatures

PHYSICAL PROPERTIES

Mix Ratio by Volume	1A : 1B
Specific Gravity	
Side A:	1.06 ± 0.1
Side B:	1.07 ± 0.1
Viscosity @75°F (24°C)	
Side A:	1600 ± 500 cps
Side B:	1200 ± 500 cps
Gel Time (ASTM D-2471) at 75°F (24°C)	35 ± 5 seconds
Hardness (ASTM D-2240)	50 ± 5 Shore A
Tensile Strength (ASTM D-412)	425 ± 50 psi 2.93 ± 0.35 MPa
Elongation (ASTM D-412)	550 ± 50%
Tear Strength Die C (ASTM D-624)	50 ± 5 pli 8.76 ± 0.8 kN/m
Total Solids by Weight (ASTM D-2669)	95 ± 2%
Total Solids by Volume (ASTM D-2697)	95 ± 2%
VOC Content (A & B) (ASTM D2369-81)	0.42 lb/gal 0 gm/liter

Available in
22 oz Cartridges
10-gallon Kits

Shelf Life

1 year in original unopened container.

Storage Conditions

Recommended storage temperature is between 60°F to 95°F.

Consistency

Pourable, self-leveling liquid.

Pot Life

Approx. 30 seconds
(100 gram mass)

Appearance

Thin clear liquid, Custom Color Matching Available

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MATERIAL COVERAGE PER GALLON

Consider approximately 15% for waste due uneven joint depth and width, overflow of material, nozzle waste, etc.

		JOINT WIDTH						
		1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
JOINT DEPTH	1/4"	308	205	154	123	102	88	77
	3/8"	205	136	102	82	68	58	51
	1/2"	154	102	77	61	51	44	38
	5/8"	123	82	61	49	41	35	30
	3/4"	102	68	51	41	34	29	25
	7/8"	88	58	44	36	29	25	22
	1"	77	51	38	30	25	22	19

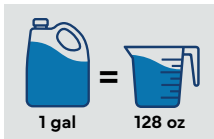
CARTRIDGE CALCULATION

1. Multiply gallons by 128:

$$10 \text{ gal} \times 128 \text{ oz} = 1280 \text{ oz}$$

2. Divide result by the cartridge size (22 oz):

$$1280 \text{ oz} \div 22 \text{ oz} = 58 \text{ cartridges}$$



SURFACE PREPARATION

Allow concrete to cure 28 days before installation. Saw cut the joint to ACI Recommendations. All joints must be clean and dry prior to installing PE-45.

If joint is damp, dry with heat torch. If primer is required, use Polyprime® 2180 or Polyprime® EBF-LV.

Remove all dust from the concrete pores prior to installing PE-45. If backer rod is used in control joints, the recommended depth is not greater than 25% of the total depth of the slab.

Construction joints are to be filled to full depth using no backer rod or silica sand. To repair T-joints, the joint should be cut a minimum of 25% of the total depth of the slab. The side of the T-joint must be cut 1/2" (1.27 cm) from the joint and a minimum of 1/2" (1.27 cm) deep.

For random crack and spall repairs, each side of the crack should be cut to create a minimum 1/2" (1.27 cm) deep vertical edge. Ensure that all joint edges are at 90° angles to grade with no V-grooving or feather edges.

MIXING

PE-45 may not be diluted under any circumstance. Side-A material requires no mixing. Pre-mix Side-B material before application using a mechanical mixer at a low speed. Mix until a homogeneous mixture and color is attained.

Do not mix in an up and down motion. Use only a proportioning dispensing system which transfers, meters and mixes the Side-A

with Side-B components at the desired rate and at the required proportion of 1:1 by volume.



APPLICATION

For best results, machine dispense using a 1:1 ratio pump, with or without heater as required. Use a disposable static mixing tube with restrictor before dispensing. Material left in static mixing tube will thicken in approximately 30-60 seconds and mixing tube needs to be discarded at that point. This material can be applied at environmental temperatures from 20°F (6.6°C) to as high as 135°F (57°C). The product needs to be conditioned at 75-80°F (25-27°C) prior to use.

PE-45 may be used to fill the entire crack/joint. Excess/overflow joint material should be shaved off 60 to 90 minutes after application.

FINISHING

Slice off any over-pour flush to grade. Open to traffic once PE-45 has set. Surface can be utilized to light traffic typically within 90 minutes of application.

LIMITATIONS

Discoloration will occur if exposed to UV, however no change will occur in the physical properties. **Warning: This product contains Isocyanates and Solvent.**

CLEAN UP

Cured product may be disposed of without restriction. Mix excess Side-A with Side-B material and allow to cure. Check local, state and federal laws before disposing of material.

SAFETY AND HANDLING

All personnel should read and understand product Safety Data Sheets provided. Long sleeved overall or disposable overalls, rubber gloves, splash shields, rubber or leather boots should be worn. Do not use near high heat or open flame. Do not take internally. Keep out of the reach of children.

FIRST AID

Remove any contaminated clothing. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician immediately. For respiratory problems, remove person to fresh air. For skin contact, remove immediately with a dry cloth or paper towel. Wash area of contact thoroughly with soap and water. Solvents should not be used because they carry the irritant into the skin. Wash contaminated clothing prior to re-use. Cured products are innocuous.

WARRANTY

HTS warrants its products to be free of manufacturing defects will meet current published physical properties when applied in accordance with HTS directions and tested in accordance with ASTM and HTS standards. There are no other warranties by HTS of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. HTS shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty, whether expressed or implied, including any warranty of merchantability or fitness for a particular purpose or from any other cause whatsoever.

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