CITADEL

POLYFLEX-93

DESCRIPTION AND USES

Citadel® Polyflex-93 is a two component, 100% solids, VOC compliant, self-leveling, flexible control and expansion joint filler. This product cures rapidly and consistently at temperatures ranging from 50-100°F. With a tack-free time of under 5 minutes, Polyflex-93 reduces downtime and allows repaired areas to be reopened to vehicle or foot traffic in one hour. Excellent elastomeric properties create flexibility while a tenacious bond to the concrete sidewalls of the joints leads to long lasting results and performance.

PRODUCT

SKU	DESCRIPTION (Gray)
25220B	22 oz. Cartridge
397087	10 Gallon Kit

JOINT PREPARATION

Remove all dust, debris, oil, and any other contamination from the construction and/or saw cut joints. For best results re-cut the joints with a dry diamond blade. Joints must be clean and dry. Fill deep cracks with backer rod before applying the joint sealant. The minimum depth of the joint should be twice the width with a minimum depth of ½ inch.

LIMITATIONS: Polyflex-93 is not intended for joints that are subject to high movement or on exterior applications. This is a moisture sensitive product during and prior to full cure. Joints must be clean and dry to facilitate a strong bond.

Note: 22 oz. Polyflex-93 comes in a side-by-side dual component cartridge. It is compatible with any standard 22 oz. dispensing tool.

PRODUCT APPLICATION

APPLICATION – 22 OZ. CARTRIDGE

IMPORTANT: Shake cartridge vigorously for 1 minute, then stand cartridge upright for 1 minute. During set-up of cartridge and initial dispensing of material, keep cartridge and nozzle assembly pointed straight up. AFTER the initial shot of material, do not point the cartridge upward to prevent material in nozzle from flowing back into cartridge.

The two components are supplied in a dual cartridge and mixed simultaneously through a static mixing nozzle. Insert cartridge into dispenser. Make sure it is properly positioned with shoulder of cartridge flush with front/top bracket of the dispenser. Remove plastic cap from the top of the cartridge. Place the mixing nozzle onto the cartridge and secure by threading in a clockwise direction. Make sure that the nozzle and cartridge assembly is secure. Point nozzle straight up and slowly apply pressure to the dispenser, moving product up and through the nozzle until it reaches the tip. Then dispense 1 stroke of material into a rag or disposable container (1-2 quick bursts if using an air tool) and discard. After purging keep the cartridge pointed downward or horizontal to prevent mixed material in the nozzle from flowing back into the cartridge.

PRODUCT APPLICATION (cont.)

APPLICATION – 22 OZ. CARTRIDGE (cont.)

Place the mixing nozzle directly over the crack, joint, or repair area. Dispense material using full smooth trigger pulls (no short choppy strokes) and allow material to gravity feed into the crack/joint. Over-fill the crack/joint so that material is slightly higher than the face of the concrete slab you are repairing. Allow the product to set for approximately 45-90 minutes (at 75°F), then remove excess material with a sharp razor scraper to shave excess material from the top of slab; avoid chopping motions. DO NOT ALLOW MATERIAL TO RESIDE IN THE STATIC MIXER FOR LONGER THAN 45 SECONDS OR BLOCKAGE CAN OCCUR

APPLICATION – 10 GALLON KIT

The temperature of the work area and surface should be between 50–100°F during application, and the material should be at least 65°F. Using the material at higher temperatures or with larger quantities will shorten the pot life. You must premix the B side (Poly) until uniform before combining it with the A side (Iso). Mix times will vary depending on the volume of material used and the mixing method.

Polyflex-93 can be dispensed using a dual cartridge static mix gun or a low-pressure, plural component machine pump. An air compressor that can provide 100 psi and 10 CFM of constant pressure is also required. Dispense initial material away from the joint to ensure the material is fully mixed.

When weight is not an issue, closed cell backer rods may be installed at a depth of 1”-1 ¼”. If you plan on exposing the joints to heavy loads, the joint filler should be applied at full depth. Coverage will depend on the size of the joints. The recommended method of application is to fill the joint from bottom to top. Overfill the joint by up to 5%, so you can cut excess material away to be flush with the surface. Allow the filler to set for approximately 45 minutes before using a sharp wall scraper or stiff, sharp razor blade to shave off excess material. Applying lightweight oil to the blade will allow for easier shaving.

CLEAN-UP

Clean up immediately with xylene. Rust-Oleum Professional Solutions Xylene Solvent Blend or MEK may be substituted.

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PERFORMANCE CHARACTERISTICS

TENSILE STRENGTH
METHOD: ASTM D412
RESULT: 1600 PSI

ELONGATION
METHOD: ASTM D412
RESULT: 170%

BOND STRENGTH
METHOD: ASTM D624
RESULT: 375 kN/m minimum

HARDNESS, SHORE D
METHOD: ASTM D2240
RESULT: 90-93

POT LIFE: 1-2 minutes

Note: Higher temperatures and larger quantities will shorten the gel-time. Lower temperatures and smaller quantities will lengthen gel-time.

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PHYSICAL PROPERTIES

		POLYFLEX-93 WITH STATIC MIXER		
Resin Type		Two-component Polyurea		
Color		"A" Component (ISO) - Amber	"B" Component (Poly) - Gray	Mixed - Concrete Gray
Weight	**Per Gallon**	10.67 lbs.		
	Per Liter	1.28 kg		
Solids	**By Weight**	100%		
	By Volume	100%		
Volatile Organic Compounds		<10 g/l Mixed		
Practical Coverage (22 oz. cartridge)		1/4" width w/backer rod; 17 feet. Coverage will depend on the size and depth of the joints.		
Dry Times at 70-80°F (21-27ºC) and 50% Relative Humidity	**Light Traffic**	90 minutes		
	Heavy Traffic	12-16 hours		
Storage Stability		Unopened containers 60-90°F		
Shelf Life		18 months		
Safety Information		**For industrial or commercial use only. Keep out of reach of children. For additional information, see SDS**		

Calculated values are shown and may vary slightly from the actual manufactured material.

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