



CITADEL

POLYFLEX UV

DESCRIPTION AND USES

Citadel® PolyFlex UV is a two-component, rapid curing, 1:1 ratio, self-leveling, semi-rigid system that provides excellent flexibility, elongation, and resistance to degradation from UV-light exposure. This product will cure at temperatures down to -20 °F (-29 °C). Apply PolyFlex UV using a 1:1 dual component caulk gun, over filled joints can be shaved flush 1-24 hours after placement.

PolyFlex UV is used to fill interior control joints or new construction saw cuts on horizontal concrete surfaces. It is designed for industrial floor applications receiving heavy duty vehicle traffic. It can be used on exterior applications, but constant UV exposure may cause discoloration over time. Joints can be opened to light traffic after 1 hour and heavy traffic after two hours.

PRODUCT FEATURES AND BENEFITS

- Excellent UV resistance
- Fast setting formula (1-2 hour return to service)
- 24-hour shave window adds flexibility at the jobsite
- Reduces joint damage and costly repairs
- Will cure down to -20 °F (-29 °C)
- Will not foam or bubble when applied to damp joints
- Low sensitivity to moisture when compared to other polyurea joint fillers

PRODUCT

SKU	Description (22 oz. Cartridge)
384525	PolyFlex UV

COMPANION PRODUCTS

SKU	Description
257397	Replacement Static Mixer Nozzle (3 per pack)

PRODUCT APPLICATION

SURFACE 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. The minimum depth of the joint should be twice the width with a minimum depth of 1/2 inch.

LIMITATIONS: PolyFlex UV is not intended for joints that are subject to high movement 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. It is not recommended to coat over PolyFlex UV. **Note:** 22 oz PolyFlex UV comes in a side-by-side dual component cartridge.

PRODUCT APPLICATION (cont.)

JOINT BACKING

It is not recommended to use a backer rod with PolyFlex UV as full depth filling is required to provide proper load transfer. Dried silica sand may be used to fill the bottom of a joint to prevent material loss through the slab.

PRIMING

PolyFlex UV does not require a primer before application.

MIXING

Shake cartridge well before using. Remove threaded nut and plastic plug then attach the static mixer. Be sure to purge until uniform mix is achieved. 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. While preparing cartridge for dispensing, keep cartridge in upright position to prevent material from leaking out of cartridge. Do not tilt cartridge until material is ready to be applied to the repair area.

APPLICATION

PolyFlex UV must be installed in the joint full depth. Joints should be slightly overfilled and shaved smoothly with the surrounding joint edges, giving the floor joints a flat appearance. Shaving of excess PolyFlex UV can begin approximately 1 hour after placement, and up to 24 hours later, depending on jobsite conditions such as the concrete and ambient temperatures.

CLEANUP

Acetone may be used for cleaning tools and equipment. Be sure wipe away unwanted material before PolyFlex UV has cured. Once cured it can be extremely difficult to remove.

SPECIFICATIONS AND COMPLIANCES

- Complies with ACI 302 performance recommendations regarding control and construction joint fillers.
- USGBC LEED Version 4, BD&C, ID&C
- The WELL Building Standard
- ANSI/GBI 01, Green Building Assessment Protocol



POLYFLEX UV

PRODUCT APPLICATION (cont.)

PRECAUTIONS/LIMITATIONS

It is best practice to apply PolyFlex UV as late as possible after a new slab is poured to allow for any slab shrinkage to occur prior to filling joints.

PolyFlex UV material and all application equipment should be kept at ambient temperatures of 50°F (10°C) or above. Surface and ambient temperature during applications should be between -20-90 °F (-29-32 °C) Do not use PolyFlex UV as an expansion joint sealant. Contact surfaces must be clean and dry for best adhesion. Joint edges must be thoroughly cleaned prior to filling, particularly if a floor sealer or densifier has been applied.

Coatings may not adhere to PolyFlex UV. It is not recommended to apply coatings over PolyFlex UV. Product may slightly discolor if constantly exposed to exterior UV radiation. In all cases, consult the Safety Data Sheet before use.

COVERAGE*

Joint Width	Joint Depth				
	1"	1.5"	2"	2.5"	3"
3/32"	34 ft	23 ft	17 ft	14 ft	11 ft
1/8"	26 ft	17 ft	13 ft	10 ft	8.5 ft
3/16"	17 ft	11 ft	8.5 ft	7 ft	6 ft
1/4"	13 ft	8.5 ft	6 ft	5 ft	4 ft
3/8"	8.5 ft	6 ft	4 ft	3.25 ft	2.75 ft
1/2"	6 ft	4 ft	3 ft	2.5 ft	2 ft

*This table gives rough guidelines on estimating the amount of material needed. These numbers represent the length of joint that can be filled with one 22 oz cartridge of material, based on the joints' width and depth.

PERFORMANCE CHARACTERISTICS

SHORE D HARDNESS

METHOD: ASTM D2240
RESULT: 34 to 36

SHORE A HARDNESS

METHOD: ASTM D2240
RESULT: 84 to 88

TENSILE STRENGTH (@ 7 DAYS)

METHOD: ASTM D412
RESULT: 660 psi (4.6 MPa)

ELONGATION (@ 7 DAYS)

METHOD: ASTM D412
RESULT: 220% to 260%

ADHESION TO CONCRETE (@ 7 DAYS)

METHOD: ASTM 4541
RESULT: 250 psi (1.7 MPa)

VISCOSITY

METHOD: ASTM D2196
RESULT: Part A: 2000 cp
Part B: 1800 cp

CHEMICAL RESISTANCE

(ASTM D1308)

ACETIC ACID 10%

RESULT: No effect

ALCOHOL 10%

RESULT: No effect

AMMONIUM HYDROXIDE 10%

RESULT: No effect

BRAKE FLUID

RESULT: Swelled, softened

DIESEL FUEL

RESULT: Discolored

ETHYLENE GLYCOL (antifreeze)

RESULT: No effect

GASOLINE

RESULT: Stained

HYDROCHLORIC ACID 20%

RESULT: Slight swelling

JP-4 JET FUEL

RESULT: No effect

USED MOTOR OIL

RESULT: Stained

SALT WATER

RESULT: No effect

SODIUM HYDROXIDE 10%

RESULT: Slightly discolored

SULFURIC ACID 10%

RESULT: No effect

XYLENE

RESULT: No effect



POLYFLEX UV

PHYSICAL PROPERTIES

		POLYFLEX UV
Resin Type		Polyurea
Solids	By Weight	100%
	By Volume	100%
Approximate Coverage		40 in ³ per cartridge (655 cm ³)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity†	Gel Time	25-30 seconds
	Tack Free Time	3 to 4 minutes
	Shave "Window"	1 to 24 hours
	Traffic Ready Time	Light Traffic: 1 hour Heavy Traffic: 2 hours
Shelf Life		1 years
Safety Information		For additional information, see SDS

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

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