VFI®-5000 90 A EXPANSION JOINT FILLER

VFI-5000 90 A Expansion Joint Filler is a two-component, self-leveling polyurea hybrid material for filling and protecting interior control joints or new construction saw joints in industrial floors. With strong elastomeric properties, the joint filler ensures joints stay sealed when concrete expands or contracts due to temperature changes. Polyurea hybrid joint fillers also protect concrete joint edges from deteriorating due to high traffic and heavy loads. A fast cure time decreases downtime, allowing you to trim the material to be flush with the surface quickly after application. VFI-5000 is a versatile material that can also be used to patch and repair cracks or joints.

- Rapid curing for decreased downtime during installation
- Excellent abrasion and chemical resistance in high traffic areas
- 1A:1B mix ratio by volume for easy application using a Qwik Spray Gun and static mix tip
- Prevents water, dirt, and other contaminants from causing deterioration
- Allows concrete to expand and contract without cracking or breaking

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Shore Hardness	ASTM D2240	87 ± 3 A
Tensile Strength	ASTM D412	1,346 psi
Elongation at Break	ASTM D412	82%
Tear Strength (Die C)	ASTM D624	78 pli
Shrinkage (12" x 1/2" x 1/2")	ASTM D2566	N/A
Standard Color	N/A	Gray

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Mix Ratio by Volume	N/A	1A:1B
Weight per Gallon A Side	ASTM D1475	8.96 lb/gal
Weight per Gallon B Side	ASTM D1475	9.23 lb/gal
Mixed Weight per Gallon	ASTM D1475	9.08 lb/gal
Viscosity A Side (cps @ 77°F)	ASTM D2196	700 cps
Viscosity B Side (cps @ 77°F)	ASTM D2196	400 cps
Mixed Viscosity (cps @ 77°F)	ASTM D2196	N/A
Pot Life (150g mass @ 77°F)	N/A	1 minute
Place into Service	N/A	90 minutes
Full Cure Time	N/A	N/A

VFI®-5000 90 A EXPANSION JOINT FILLER

EQUIPMENT

VFI-5000 can be dispensed using a dual-cartridge static mix gun, like VFI-7500 Qwik Spray 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 when using VFI-7500. Keep the cartridge upright when loading it into the applicator gun. Dispense initial material away from the joint to ensure the material is fully mixed.

Note: Application with the Qwik Spray Gun must be performed continuously. Stopping before the cartridge is fully dispensed will result in the material setting up in the mixing nozzle.

SURFACE PREPARATION

Joint filler separation can be avoided by delaying the application as long as possible after new concrete has been poured so it has time to shrink and cure. New concrete slabs should be allowed to cure for at least 28 days before installing the joint filler. All joints must be cleaned, prepped, and free of oils, dirt, loose particles, or other contaminants that might affect adhesion. Clean concrete where necessary by grinding, sandblasting, or wire brushing. For optimal results, re-cut joints with a dry diamond blade.

All surfaces should be structurally sound and dry (less than 5% moisture). If the area is wet or damp, the joints must be primed and allowed to set. If joints in the concrete have been filled previously, remove all old joint sealing materials. Priming may be required if the previous filler or sealant is not saw-cut from the joint.

MIXING

Ambient and surface temperature should be between 50°F - 100°F during application, and the material should be at least 65°F. Using the material at higher temperatures or in 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. When using cartridges, mixing is not required unless the material is visibly separated. Shake the cartridges until uniform if separation occurs.

APPLICATION REQUIREMENTS

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. VFI-5000 cartridges, when used with a backer rod, will cover 17’ of ¼” wide control 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.

CLEANUP

Wipe excess material from the surface and application tools with xylene or MEK before it cures. If the material cures, a sharp wall scraper can be used to remove it. When using the Qwik Spray Gun, remove the cartridges from the applicator frame and throw them away. Do not soak the gun in cleaning solvent.

STORAGE/SHELF LIFE

The material should be stored in a clean, dry building between 60°F - 90°F. The shelf life of cartridges is 6 months from the date of manufacture, and 12 months for containers. Opened containers can be resealed with a nitrogen purge immediately after use to try and prolong the material’s shelf life.

PRECAUTIONS

This product contains isocyanate, which may irritate the skin and is toxic if inhaled as particulate matter. Avoid prolonged breathing of vapors and repeated skin contact. Use only with adequate ventilation. It is not intended for joints that are subject to high movement from thermocycling. As a moisture-sensitive product, joints must be dry or primed. VFI-5000 is not UV color stable and has no long-term UV testing. Do not thin or add foreign material to the product. See the Safety Data Sheet for all safety information.