TECHNICAL DATA SHEET

RAPID FLEX 90

Rapid-Curing, Semi-Rigid Polyurea Control Joint Filler

DESCRIPTION

Rapid Flex 90 is an industrial, high-durometer, 100% solids, two-component, UV-resistant, semi-rigid, rapid-curing polyurea for filling control and construction joints in heavy-duty industrial concrete floors. Rapid Flex 90 allows joints to be shaved quickly for fast turnaround. It is designed in compliance with ACI 302, Section 4.10, recommendations for joint fillers in saw-cut/control joints, with a Shore A durometer of 90. Rapid Flex 90 can also be used to repair damaged or spalled joint nosings and fill random cracks.

Rapid Flex 90 is available in additional architectural colors (see the RapidFlex Colorant System).

USES

- Industrial and commercial floors
- Control and construction joints
- Crack and joint repair
- Pick-proof sealant in security facilities

BENEFITS

- Easy 1:1 mix ratio; pourable/pumpable consistency
- UV resistant and colorfast; high elongation (100%) to resist tearing from excessive movement
- Semi-rigid flexibility that does not weld slabs together or become brittle with age
- Optimum hardness (Shore A 90) to transfer wheel loads while allowing moderate movement
- Can be applied and cures down to −20 °F (−29 °C)
- Quicker turnaround and less downtime than epoxy joint fillers
- Superior moisture resistance compared with traditional polyurea fillers; preserves a uniform color appearance
- Effectively resists color degradation or discoloration

COMPLIANCE/STANDARDS

- Accepted for use in USDA-, FDA- and CFIA-regulated facilities; authorized for use in federally inspected meat and poultry plants
- Complies with ACI 302 guidelines and PCA Concrete Floors on Ground for "floor joint filler"
- 100% solids; contains no VOCs; LEED compliant

APPLICATION

Joint Preparation: Joints must be clean, dry and free of curing compounds, densifiers, sealers and any other foreign substances. Remove these with a vacuum-equipped, dry-cut abrasive blade, and use oil-free compressed air to remove any water or dust before applying Rapid Flex 90. Per ACI and PCA guidelines, install Rapid Flex 90 full depth in saw-cut control joints, and a minimum of 2" (51 mm) deep in joints deeper than 2" (51 mm). Do not use compressible backer rod to reduce volume. Apply Rapid Flex 90 to a minimum depth of 1" (25 mm).

Mixing: Rapid Flex 90 must be at 50 °F (10 °C) or above at the time of mixing. Stir/shake each component before dispensing. Use a 1:1 low-pressure duplex/plural-component metered pump with a 3/8" × 24" element static mixer.

Application: When using a cartridge or plural-component pump, dispense mixed material into a waste container to ensure a uniform color and a consistent 1:1 ratio, then dispense properly mixed

Rapid Flex 90 into the prepared joint. Overfill the joints and allow to cure approximately 1 hour and up to 6 hours before shaving flush with a floor razor scraper. Depending on temperature, shaving after 6 hours may require more effort to achieve a smooth finish. The cut joint must be flush with the floor to effectively transfer wheel loads.

Stain Protection: Because Rapid Flex 90 sets so quickly, overfill is unlikely to stain the sides of the joint. Where aesthetic, decorative or architectural finishes are critical, use Spec CJ Guard as a stain protectant and to facilitate shaving.

If Rapid Flex 90 is installed in a floor before maximum shrinkage has occurred, a crack may appear either adhesively or cohesively. This should not be considered a failure of Rapid Flex 90, which will continue to support the joint edge and transfer wheel loads. To remedy the situation, clean out the crack, wipe it clean with SpecChem Solvent 100 and refill with Rapid Flex 90.

TECHNICAL DATA INFORMATION

Color (mixed) ..... Standard gray
Mix ratio ..... 1:1 by volume
Gel time at 75 °F (24 °C) ..... 45 seconds
Tack-free at 75 °F (24 °C) ..... 8–12 minutes
Shave time at 75 °F (24 °C) ..... 20–25 min
Return to traffic at 75 °F (24 °C) ..... 1 hour
Adhesion to concrete ..... 255 psi (1.8 MPa)
Tensile strength (ASTM D638) ..... 1,175 psi (8.1 MPa)
Shore A hardness (ASTM D2240) 90
Shore D hardness (ASTM D2240) 35

Coverage Rate – Theoretical Linear Feet per Gallon

Depth \ width	3/16"	1/4"	3/8"	1/2"
1" (25 mm)	100	76	50	36
2" (51 mm)	50	38	25	18

PACKAGING

22 fl oz (650 mL) cartridges and 10 gal (37.9 L) units

CLEANING

Remove uncured material from tools and equipment with SpecChem Solvent 100 or another approved solvent. Dispose of in accordance with local, state and federal regulations. Cured material must be removed mechanically.

SHELF LIFE

Store Rapid Flex 90 in its original containers, tightly closed, between 55 °F and 90 °F (13–32 °C). Do not allow the accumulation of water, dirt or other contaminants. Shelf life of properly stored Rapid Flex 90 is one year from the date of manufacture.

LIMITATIONS

The joint should be clean and dry for optimum adhesion. Cold temperatures delay set, cure and shaving time; for cold-temperature applications, condition the product to 75 °F (24 °C) and, if possible, warm the area to be repaired. Rapid Flex 90 is designed with low adhesive strength to encourage separation when exposed to excessive concrete slab shrinkage. Always test a small amount of Rapid Flex 90 to verify that it has been thoroughly mixed and will harden properly before proceeding.

Do not install Rapid Flex 90 on new concrete floors until maximum shrinkage has occurred; ACI 302 recommends a minimum of 30 days, and preferably 90 days, for all semi-rigid polyureas and epoxies. The longer the concrete cures before installation, the better the performance. Do not install Rapid Flex 90 until the building is under permanent temperature control.

Do not thin Rapid Flex 90 with solvents. Do not use on exterior applications or as an expansion joint sealant. Although UV resistant, Rapid Flex 90 may discolor slightly if exposed to strong, constant sources of ultraviolet radiation. Keep away from food and food containers. Protect from freezing.

WARRANTY

NOTICE – READ CAREFULLY

CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.

Revised 09/30/26