

# SPECPOXY 3000 FS



Fast-setting ASTM 881 compliant hi-mod, gel viscosity epoxy

## DESCRIPTION

SPECPOXY 3000 FS is a two-component, moisture insensitive, high modulus, structural epoxy bonding gel. SPECPOXY 3000 FS is 100% solids, solvent-free, low-odor, high-strength, and non-sag.

- Anchors bolts, dowels, and reinforcing steel
- Vertical and overhead structural bonding and patching
- Sealing of cracks and the setting of injection ports •
- For use in concrete, block, brick, or stone
- VOC Content = 0 grams per liter

## APPLICATION

**Mixing Instructions:** Air, material and surface temperatures must be a minimum of 40°F (4°C) prior to mixing or installation. To assist with mixing and dispensing, precondition material to 75°F. For bulk applications, mix equal volumes of Part A and Part B for three minutes with a low speed drill motor using a Jiffy mixer or paddle. Mix only as much material as can be used within the pot life. For cartridges, the resin and hardener are uniformly dispensed and mixed simultaneously through a mixing nozzle.

**Surface Preparation:** Surfaces to be bonded must be clean and structurally sound. Remove all oil, grease, dirt, laitance, curing compounds, and any other foreign matter by sandblasting, mechanical abrasion or hydroblasting. All drilled holes must be cleaned out with a nylon brush removing all dust and loose material. Use clean, oil free compressed air to blow out any remaining water, dust, or debris prior to application. Bolts, rebar or threaded rod should be free of dirt, grease, oil of other foreign material.

**Bonding:** As a structural adhesive, apply the SPECPOXY 3000 FS neat and work into the substrate. The glue line should not exceed 1/8".

**Anchoring:** For use in anchoring dowels, bolts, fiberglass rebar, reinforcing steel, etc. the depth of the hole should be approximately 9 times the bolt diameter. The hole diameter should be approximately 1/8" larger than the threaded rod diameter. Ensure the holes are properly prepared, (drilled, brushed and blown out) prior to preparing the epoxy cartridge. Insert the cartridge into the dispensing gun. Remove the plastic caps and dispense a small amount of material until an even flow of black and white material is achieved. Place the mixing nozzle onto the cartridge then slide the nut over the nozzle and thread the nut onto the cartridge. To achieve maximum flow, break off the tip of the mixing nozzle to the largest diameter that will fit into the hole or screen. No nut is necessary on mixers with built-in nuts. Dispense into a disposable container until a uniform grey is achieved with no streaks.

## APPLICATION (Con't)

**Into Concrete:** Dispense the material from the bottom of the hole. Fill approximately 5/8 of the hole depth while slowly withdrawing the nozzle. Insert the bolt, or dowel by turning it slowly during insertion. After insertion, the hole should be completely filled with SPECPOXY 3000 FS and devoid of all air pockets or voids. Do not disturb or bolt up until cured.

**Into Hollow Block:** The cartridge is prepared as for concrete. The mixing nozzle is inserted into the bottom of the screen. Completely fill the screen while withdrawing the nozzle. Insert the epoxy filled screen into the hole. Insert the threaded rod to the bottom of the screen while turning slightly clockwise. Do not disturb or bolt up until cured.

## TYPICAL PROPERTIES

Mix Ratio	1 to 1
Mixed Color:	Gray
Viscosity:	Gel/Paste
Gel time (ASTM 881):	10 minutes

### TYPICAL CURED PROPERTIES

Initial Cure	4 hours
Final Cure	3 days
Compressive Strength @ 8 hrs	9,768 psi
Compressive Strength (ASTM D695)	12,250 psi
Compressive Modulus (ASTM D695)	435,000 psi
Bond Strength at 2 days (ASTM 882)	2,810 psi
Bond Strength at 14 days (ASTM 882)	3,410 psi
Elongation (ASTM D638)	1.1%
Tensile Strength (ASTM D638)	7,460
Water Absorption (ASTM D570)	< 0.5%
Linear Shrinkage (ASTM C531)	.004%
Heat Deflection (ASTM D648)	151°F



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## STANDARDS

SPECPOXY 3000 FS meets ASTM C881 & AASHTO M 235, Type I, II, IV, and V Grade 3, Classes B & C.

## PACKAGING

1 gallon units • 2 gallon units • 10 gallon units  
22 oz. dual cartridge

## SHELF LIFE

Store SPECPOXY 3000 FS in its original containers and keep tightly closed. Do not allow the accumulation of water, dirt or other contaminants. The shelf life of properly stored SPECPOXY 3000 FS is two years from date of manufacture.

## LIMITATIONS

DO NOT USE FOR OVERHEAD ANCHORING.

Always test a small amount of SPECPOXY 3000 FS to verify that the product has been thoroughly mixed and will harden properly before proceeding.  
Do not thin with any solvent.

Surface and air temperatures must be a minimum of 40°F (4°C) for application.

## CLEANING

Tools and Equipment: Uncured material can be removed with SpecChem Citrus Cleaner or other approved solvent. Dispose of in accordance with local, state, and federal disposal regulations. Mechanical removal is necessary for cured material.

## PRECAUTIONS

Prolonged or repeated skin or eye contact may cause irritation. If contact occurs, wash immediately and seek medical help. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Contact with skin may cause chemical burns. Wash immediately with soap and water. Avoid eye contact. If eye contact occurs, flush immediately with water. Product is a strong sensitizer. Avoid breathing vapors. Use safety glasses and wear protective rubber gloves.

### INDUSTRIAL USE ONLY

Additional precautions, safety and first aid information are contained in the (SDS) Safety Data Sheet.

## 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.

Pullout Test on Epoxy Bonding Agents per MO DOT Test Method T-74  
Strength of Anchors in Concrete/Masonry per ASTM E 488-96  
Test performed with B7 steel threaded rod.

Rod Diameter (in)	Hole Diameter (in)	Depth Imbed (in)	Average Ultimate Tensile Load (lbs)	Mode of Failure
1/2"	5/8"	5"	19,010	concrete
5/8"	3/4"	6"	23,150	concrete
3/4"	7/8"	7"	32,400	concrete
7/8"	1"	8"	44,720	concrete
1"	1 1/8"	9"	51,880	concrete
1 1/2"	1 5/8"	13"	86,610	concrete

**SPEC-CHEM**  
Solution to Service

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