TuffTex Materials
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RepPoxy FSA

Fast Setting Anchoring & Port Pasting Epoxy

DESCRIPTION:

RepPoxy FSA Epoxy Anchoring Gel is a two-component, 100% solids, fast setting, moisture-insensitive, high strength, high modulus, and multi-purpose epoxy gel adhesive.

FEATURES:

- Convenient 1:1 mix ratio by volume
- High strength, high modulus
- Non-sag gel consistency
- Fast setting
- Easy dispensing
- Made in America
- Moisture tolerant
- Solvent free

USES:

For the installation of:

- Anchors, dowels, threaded rods, bolts
- Reinforcing steel, inserts, flat plates
- New to old concrete
- Setting injection ports, sealing cracks
- Multi-purpose adhesive
- Pick resistant sealant

TECHNICAL DATA:

RepPoxy FSA meets the current ASTM C881 and AASHTO M235 Types I, II, IV & V Grade 3, Class B & C specifications.

PACKAGING:

- 600 ml side-by-side cartridge
- 2 gal (7.6 L) unit
- 10 gal (37.9 L) unit

STORAGE:

Store in a cool, dry area, 40ºF-95ºF (5ºC-5ºC), away from direct sunlight.

SHELF LIFE:

Shelf life of unopened containers stored in a dry facility is 24 months (2 years). Excessive temperature differential and/ or high humidity can shorten the shelf-life expectancy

PROPERTIES:

Mix Ratio by Volume	1:1
Viscosity	1/4 inch non-sag gel
Gel Time (60g)	20 minutes
Initial Cure Time (73ºF/23ºC)	2-3 hours
Tensile Strength	7,500 psi (51.7 MPa)
Tensile Elongation	1.2%
Bond Strength 1 Day 7 Day	2,000 psi 2,500 psi
Compressive Strength 7 Day	12,500 psi
Compressive Modulus 7 Day	300,000 psi
Shear Strength	2,800 psi (19.3 MPa)
Shrinkage on Cure	0.001
Thermal Compatibility	Pass
Heat Deflection	140ºF (60ºC)
Absorption (24 hr.)	0.1%

PREPARATION:
The substrate should be free of all loose and foreign material and should be clean. Oils, grease, waxes or other contaminates must be removed prior to application. Be sure the crack is open where ports are placed. Set ports with putty.
HOLE PREPARATION: Drill hole to specified diameter and depth; Blow dust from the bottom of the hole with oil-free compressed air for at least four seconds; Brush clean with a specified brush for at least four cycles;
Blow again from the bottom of the hole for at least four seconds. Repeat brush and blow procedures as necessary to ensure holes are clean.

MIXING:
Precondition epoxy to 65ºF-85ºF (18ºC-29ºC).
CARTRIDGES: Insert the cartridge into the dispensing gun. Remove the plastic caps and dispense a small amount of material into a disposable container until an even flow of gray 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.
BULK: Mix 2 parts Side A Resin to 1 part Side B Hardener for 3 minutes using a "Jiffy" Mixer and a slow speed drill. Mix at slow speed (less than 850 rpm) to avoid air entrainment. Do not mix more material than can be used within the stated working time. At higher temperatures, you will have less working time.

APPLICATION:
BONDING: Apply **RepPoxy FSA** neat and work into the substrate. The glue line should not exceed 1/8" (0.3 cm).
ANCHOR INSTALLATION: For dry or damp holes, fill hole 1/2 to 2/3 full from bottom up with **RepPoxy FSA**. For water-filled holes, fill hole completely full from bottom up. Insert clean anchor turning slowly until the anchor contacts the bottom. Do not disturb anchor until **RepPoxy FSA** is fully cured. The hole depth should be approximately 9 times the bolt diameter. The hole diameter should be approximately 1/8" (0.3 cm) larger than the threaded rod diameter. Ensure the holes are properly prepared, (drilled, brushed and blown out) prior to preparing the epoxy cartridge.
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 **RepPoxy FSA** 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. After insertion, the hole should be completely filled with **RepPoxy FSA** and devoid of all air pockets or voids. Do not disturb or bolt up until cured.


RepPoxy FSA can also be dispensed with automatic pump equipment.

CLEAN UP:
Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations. Uncured material can be removed with **RepSolv-X**, Xylene, or other approved solvent. Cured material can only be removed mechanically.

LIMITATIONS:
Minimum substrate temperature is 40ºF (5ºC). Pre-condition **RepPoxy FSA** to 65°-95°F (18°-35°C) for easy-dispensing. Do not thin. Solvents will prevent proper cure.
READ SDS PRIOR TO USING THIS PRODUCT.

WARRANTY:
Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either **TuffTex Materials, Inc.** or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.

DISCLAIMER:
Refer to the SDS sheet before use. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of **TuffTex Materials, Inc**. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Published technical data and instructions are subject to change without notice. Contact your local **TuffTex Materials, Inc.** distributor or technical representative for additional technical data and instructions.

ESTIMATING GUIDE & TENSION LOADS

ROD DIA. IN(MM)	DRILL BIT DIA. IN(MM)	EMBED DEPTH IN(MM)	**HOLES PER 600ML CART.**	TENSION LOAD BASED ON BOND STRENGTH		ALLOWABLE TENSION LOAD LBS.(KN) BASED ON STEEL STRENGTH		
				ULTIMATE LBS.(KN)	ALLOWABLE LBS.(KN)	F1554 GRADE 36	A193 GRADE B7	F593 304SS
3/8 (9.5)	1/2 (12.7)	3 3/8 (8.6)	**115**	9,800 (43.6)	2,450 (10.9)	2,105 (9.4)	4,535 (20.2)	3,630 (16.1)
1/2 (12.7)	5/8 (15.9)	4 1/2 (11.4)	**65**	16,400 (73.0)	4,100 (18.2)	3,750 (16.7)	8,080 (35.9)	6,470 (28.8)
5/8 (15.9)	3/4 (19.1)	5 5/8 (14.3)	**30**	25,200 (112.1)	6,300 (28.0)	5,875 (26.1)	12,660 (56.3)	10,120 (45.0)
3/4 (19.1)	7/8 (22.2)	6 3/4 (17.1)	**18**	36,000 (160.1)	9,000 (40.0)	8,460 (37.6)	18,230 (81.1)	12,400 (55.2)
7/8 (22.2)	1 (25.4)	7 7/8 (20.0)	**15**	48,000 (213.5)	12,000 (53.4)	11,500 (51.2)	24,785 (110.2)	16,860 (75.0)
1 (25.4)	1 1/8 (28.6)	9 (22.9)	**10**	62,000 (275.8)	15,500 (69.0)	15,025 (66.8)	32,380 (144.0)	22,020 (97.9)
1 1/4 (31.8)	1 3/8 (34.9)	11 1/4 (286)	**6**	96,000 (427.0)	24,000 (106.8)	23,490 (104.5)	50,620 (225.2)	34,420 (153.1)