

## RepPoxy II Polymeric Nosing & Spall Patching System

### DESCRIPTION:

**RepPoxy II** is a unique three-component rapid curing, non-shrink, hybridized, epoxy-urethane based elastomeric concrete. It cures to a dense, semi-flexible, weather, abrasion and impact resistant polymer mortar for patching concrete spalls and the construction or repair of expansion and construction joints on bridge and parking decks. The combined A & B polymers when mixed with its part C, **RepPoxy II** blended aggregate forms a mortar with excellent long-term installation properties for joint, nosing repair, or spall patches.

### FEATURES:

- New as well as old concrete surfaces
- Outstanding anti-spalling properties
- Non-shrink
- High load bearing capacity
- Pre-measured units
- Excellent water repellency
- Chemical & Impact Resistant
- Resists the effects of freeze-thaw cycling

### USES:

- Bridge Headers & Concrete Nosing
- Columns & Beams
- Concrete & Masonry Surfaces
- Parking Structures & Ramps
- Pavements & Marine Platforms
- Airfield & Highway Pavement Repairs

### TECHNICAL DATA:

- Exceeds ASTM C881 Type III (Resin)
- VOC compliant, 0 g/L
- FAA specification for patching item P-501.19
- Meets TXDOT DMS-6140 and DMS-6170 Type II Polymer Concrete

### COVERAGE GUIDE:

- 0.5 cu. ft. kits
- 1.0 cu. ft. kits
- 2.0 cu. ft. kits

### PREPARATION:

Concrete shall have reached its design strength. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for the **RepPoxy II**. It is recommended to profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by using **TuffTex's PrepEtch**

or abrasive blasting. Apply **TuffTex's Rust-Rehab**, permanent rust converter, to any exposed steel. Precondition the **RepPoxy II** and the Aggregate to ideally 72°F (22.2°C) for 24 hours before use. **RepPoxy II** can be heated up to 100°F (38°C) to speed cure at colder temperatures. It is recommended to condition all components when the temperature is below 50°F (10°C).

### MIXING:

**RepPoxy II** is shipped in pre-measured 0.5 ft<sup>3</sup>, 1.0 ft<sup>3</sup>, or 2.0 ft<sup>3</sup> units. Mix these products **ONLY** in complete units. **DO NOT THIN** or add any solvents or other aggregates prior to mixing.

**RepPoxy II 0.5 ft<sup>3</sup> (.014 m<sup>3</sup>) kit:** Side A-Resin, and Side B-Hardener are packaged in separate partially filled 1-gallon cans. Pour both liquid components into pail and slowly mix thoroughly for 3 minutes using a 1/2+ hp heavy-duty drill with a Mortar Paddle. Utilizing the TuffTex Mixing Stand can greatly assist in stabilizing the mix pail. After liquid components are mixed well, slowly add component C-Aggregate (1- 50 lb. bag). Mix only long enough until all aggregate is wetted out.

*NOTE: Keep mixer at bottom of pail to avoid introducing air.*

**RepPoxy II 1.0 ft<sup>3</sup> (.028 m<sup>3</sup>) kit:** Side A & B are packaged in full gallon cans. Side C-Aggregate is packaged in (2) 50 lb. bags. Pour both liquid components into pail and slowly mix thoroughly for 3 minutes using a 1/2+ hp heavy-duty drill with a Mortar Paddle utilizing the TuffTex Mixing Stand to stabilize the mix pail. After liquid components are mixed well, slowly add component C-Aggregate (1- 50 lb. bag). Mix only long enough until all aggregate is wetted out.

*NOTE: Keep mixer at bottom of pail to avoid introducing air.*

**RepPoxy II 2.0 ft<sup>3</sup> (.057 m<sup>3</sup>) kit:** Side A & B are packaged in partially filled 5 and 2 gallon pails respectfully. Side C-Aggregate is packaged in (4) 50 lb. bags. Pour Side B-Hardener into 5-gallon (18.9 liters) pail containing Side A-Resin. Thoroughly mix material for 3 minutes with a "Jiffy" mixer on a low-speed (300 rpm) drill motor until a uniform consistency is achieved. Pour liquids into mortar mixer, making sure to remove all resins from sides and bottom of pail with spatula or similar tool. Introduce first bag of Side C aggregate prior to starting mixer. Start mixer and slowly add the remaining bags of Side C aggregate. Extreme care should be taken to ensure that the aggregate is mixed uniformly from top to bottom in the bucket. **DO NOT OVER MIX.**

**PLACEMENT:**

Prime patch area with mixed Side A and Side B using a brush or roller. Immediately place patch. Set screeds or float to desired level, strike off, thoroughly compact, and finish the surface. Just smoothing the top with a steel float is not compacting the mortar. A small margin trowel, wood block, or other means can be used for compaction. Do not over finish, as this will cause the resin to float, leaving the patch slick and potentially weaker on the surface. When using **RepPoxy II** as an expansion-joint header, care should be taken to ensure the mortar is even with the plane of the bridge deck or a fraction lower. Leaving the mortar higher than the plane of the bridge deck can subject it to snowplow or other impact damage. If after removal of the forming material the mortar is found to be higher than the adjacent bridge deck or overlay, it may be re-profiled using a handheld grinder with a diamond cup wheel.

**CURING:**

Use the table below to determine minimum cure times based on the temperature of the materials and the substrate. Higher temperatures will shorten the cure while lower temperatures will lengthen the cure time. For temperatures more than 100°F (38°C) or lower than 60°F (15°C) contact **TuffTex Materials** for recommended procedures and cure time.

TEMP (°F)	Approx. Working Time	Cure Time
60-64	30 min	8.5 hrs
65-69	25 min	7.5 hrs
70-74	25 min	6.0 hrs
75-79	20 min	5.0 hrs
80-84	20 min	4.5 hrs
85+	15 min	3.5 hrs

**CLEAN UP:**

**Equipment:** Uncured material can be removed with **RepClean** solvent or locally approved solvent. Cured material can only be removed mechanically.

**Material:** Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

**Skin:** Apple Cider Vinegar then soap and water.

**COLOR:**

Side A – Gray, Side B – Amber  
Combined – Gray  
Also available in black

**PACKAGING:****0.5 cu. ft. kits**

- Component A: (1) gallon can (partial fill)
- Component B: (1) gallon can (partial fill)
- Component C: (1) 50 lb. bag

**1.0 cu. ft. kits**

- Component A: (1) gallon can (full)
- Component B: (1) gallon can (full)
- Component C: (2) 50 lb. bags

**2.0 cu. ft. kits**

- Component A: (1) 5-gallon pail (partial fill)
- Component B: (1) 2-gallon pail (partial fill)
- Component C: (4) 50 lb. bags

**STORAGE:**

The material should be stored between 40°F – 95°F (4°C – 35°C) in a cool, dry area away from direct sunlight.

**SHELF LIFE:**

Shelf life of safely stored, unopened containers is 24 months (two years). Excessive temperature differential and/or high humidity can shorten the shelf life expectancy.

**LIMITATIONS:**

- For professional use only
- Do not thin with solvents
- Compressed air equipment must have an oil/air separator.
- Substrate temperature should be a minimum of 65°F (18.3°C).
- **RepPoxy II** is a vapor barrier after curing.
- Contact **TuffTex** representative before applying as a repair mortar if concrete is less than 28 days old.
- Consult **TuffTex** representative when mixing or placing outside of the temperature recommendations listed.

**PHYSICALS:**

Mixing Ratio	1:1 by Volume
Gel Time (100 grams @ 77°F)	28 min
Compressive Strength min @ 24 hrs. (Method B) 2,000 Min ASTM C579	2,370 psi
Compressive Stress to 0.10 in. & Resilience @ 7 days (TEX-618-J)	3,930   92.0%
Tensile Strength & Elongation Strength (TXDOT-618-J, 7 days @ 77°F)	1,230 psi   122%
Wet Bond Strength (TEX-618-J)	320 psi

**CHEMICAL RESISTANCE (ASTM D471):**

Deicer	No Effect	Motor Oil	No Effect
5% NaCl	No Effect	Brake Fluid	No Effect

**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** 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.

**CAUTION:****READ SDS PRIOR TO USING PRODUCT**

Use with adequate ventilation. Wear protective clothing, gloves and eye protection. (Goggles, Safety Glasses and/or Face Shield) Keep out of the reach of children.

Do not take internally. In case of ingestion, seek medical help immediately. May cause skin irritation upon contact, especially if prolonged or repeated exposure. If skin contact occurs, wash immediately with soap and water, and seek medical help as needed. If eye contact occurs, flush immediately with clean water and seek medical help as needed. Dispose of waste material in accordance with federal, state, and local requirements. Cured resins are Innocuous. Dispose of waste material in accordance with federal, state, and local requirements.

**DISCLAIMER:**

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of **TuffTex Materials**. 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** distributor or technical representative for additional technical data and instructions.