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# **Polymer Concrete Header & Nosing Repair Mortar**

# **DESCRIPTION:**

**RepCrete HM** is a unique three-component rapid curing, non-shrink, hybridized polymer based elastomeric concrete that cures to a dense, semi-flexible, weather, abrasion and impact resistant polymer mortar for the construction or repair of expansion and construction joints on bridge and parking decks. The combined **RepCrete HM** A & B polymers when mixed with its part C, (Polymer Treated Blended Aggregate) forms a mortar with excellent long-term installation properties for joint nosing repairs, or deep patches.

#### **FEATURES:**

- New as well as old concrete surfaces
- Outstanding anti-spalling properties
- High-load bearing capacity
- Resists the effects of freeze-thaw cycling
- Excellent water repellency
- Chemical & Impact Resistant
- Fast drying in any temperatures
- New as well as old concrete surfaces

#### **USES:**

- Bridge Headers and Concrete Nosings
- Pavements & Marine Platforms
- Airfield & Highway Pavement Repairs
- Concrete & Masonry Surfaces
- Parking Structures
- Bridges & Ramps

## **TECHNICAL DATA:**

Exceeds ASTM C881 Type III (Mortar) Meets: TxDot DMS- 6140 Type I Polymer Concrete

#### **COVERAGE GUIDE:**

<sup>1</sup>/<sub>2</sub> Cu. Ft. - Pail Kit 1.0 Cu Ft. - 2 gallons Liquid, 2 bags Aggregates

## **PREPARATION:**

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 **RepCrete HM**. It is recommended to profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by using **PrepEtch** or abrasive blasting. Apply **Rust Rehab** permanent rust converter to any exposed steel. Precondition the **RepCrete HM** to 72 degrees for 24 hours for best results. **RepCrete HM** may be heated up to 100°F to speed cure at colder temperatures. It is recommended to condition all components when the temperature is below 50°F.

## MIXING:

**RepCrete HM** is shipped in pre-measured <sup>1</sup>/<sub>2</sub> Cu. Ft. units. Mix these products ONLY in complete units. DO NOT THIN or add any solvents or other aggregates prior to mixing. Mix the <sup>1</sup>/<sub>2</sub> Cu. Ft. kit per instructions and in the prescribed order on the pail and TDS.

#### **PLACEMENT:**

The blended batch must be applied to the surface in 5-10 minutes. Once spread out, working time will be approximately  $\frac{1}{2}$  hour depending upon temperature. It is extremely important that the material be thoroughly compacted. Care should be taken to assure good compaction on the vertical face of the joint and along the side of the block out or form. 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.

#### **CURING/DRYING TIME:**

At 75°F. (Substrate & air temperature), the mortar will cure sufficiently to accept traffic in two hours. Higher temperatures will shorten the cure while lower temperatures will lengthen the cure time. For temperatures in excess of  $100^{\circ}$ F, or lower than  $60^{\circ}$ F, contact TuffTex for recommended procedures and cure time.

#### **CLEAN UP:**

All tools, other application or mixing equipment must be cleaned at frequent intervals and while **RepCrete HM** remains soft and uncured. Clean with **TuffTex Solvent 100**, or local approved solvent.

## **PACKAGING:**

6 Gallon Kit (<sup>1</sup>/<sub>2</sub> Cu.Ft.): is made up of equal volumes of "A" and "B" polymers, 30 pounds of body aggregate, 20 pounds of 3/8" pea gravel, and a 6 pound bag of topping sand. (All aggregates are pre-treated). The entire contents come in a 6 gallon pail in which the material can mixed with the **RepCrete Quick Pail Mixer** or a <sup>1</sup>/<sub>2</sub> hp heavy-duty drill with the **RepCrete Mixer Stand**.

Bulk Mortar and Overlay Kits are also available in 10, 30, 100, & 250 Gallon vessels. Treated Sands & Aggregates are available in 50 lb. sacks, 2500 lb. bins, and 2500 lb. Super Sacks.

Combined Elquid Components	
Mixing Ratio	1:1 by Volume
Tensile Strength	2100 psi
Gel Time	15-25 min
Cured Mortar	1400 psi @ 3 hrs.
Compressive Strength	4800 psi @ 24 hrs.
Compressive Stress	4000 psi
Bond Strength	300 psi
Wet Bond Strength	450 psi
Resilience	95%

#### PHYSICALS: Combined Liquid Components

# CHEMICAL RESISTANCE:

Chemical Effects, ASTM D 471, 25°C (77°F) after 22 hr.	
Deicers	None
Motor Oil	None
Sodium Chloride Solution (5%)	None
Hydraulic Brake Fluid	None

#### COLOR:

Gray or Black

## **STORAGE:**

The material should be stored between  $40^{\circ}-90^{\circ}F(5^{\circ}-33^{\circ}C)$  in a cool, dry area away from direct sunlight. For best results, condition material to  $65^{\circ}-85^{\circ}F$  before using.

## SHELF LIFE:

Shelf life of properly stored, unopened containers is 12 months.

# **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.

## 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** 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 MSDS 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**. 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** distributor or technical representative for additional technical data and instructions.