



Rapid Setting, Polymer Modified, Horizontal Repair Mortar with Corrosion Inhibitor

DESCRIPTION:

LightningCrete is a CAC & Portland cement based, single component, fibered, rapid setting, high quality concrete repair material. This unique formulation develops high early strength with zero shrinkage and excellent durability.

USES:

- Highways, roads, bridges, runways
- Parking decks and ramps
- Commercial or any concrete floors

FEATURES:

- Initial set 8-12 minutes
- Final set- 30 minutes
- Non-shrink, Non-gypsum based
- High compressive and bond strength
- Excellent freeze-thaw resistance
- Traffic in less than 2 hours

TECHNICAL:

LightningCrete is formulated to meet the requirements of TxDOT SS-4491 (Class CAC Concrete). **LightningCrete** meets ASTM C928 Packaged, Dry, Rapid Hardening Cementitious Material for Concrete Repair and AASHTO T260.

COVERAGE GUIDE:

Yield: 0.5 cu.ft. per 65 Lb. bag

PREPARATION:

The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. Square edges by saw cutting the perimeter of the repair 1/8" deeper than the depth of the repair, creating a notched, reinforced edge for maximum durability. If required, mechanically abrade the surface by grinding, abrasive blasting, or water blasting. All concrete of poor quality that is in contact with reinforcing steel should be removed. Remove rust from exposed reinforcing steel by brushing or sandblasting. Apply **TuffTex Rust-Rehab** permanent rust converter any exposed steel, prior to repairing with **LightningCrete**. Have all necessary tools and materials as near work areas as possible to permit rapid and

continuous placement of **LightningCrete**. All surfaces to be repaired should be in a saturated surface-dry (SSD) condition with no standing water on the surface.

MIXING:

Mix 7.0 to 8.0 pints of clean potable water per 65 pounds of **LightningCrete** using either the TuffTex Rapid Pail Mixer "or" a 1/2 + hp heavy-duty drill with a Mortar Paddle. Mix until completely blended and free of lumps, typically 1-2 minutes. Do Not Over Mix. When using a power Mixer to blend material, use a slow speed high torque drill at no more than 500-650 RPM. ALWAYS add material to water when using a bucket or mortar mixer, but add water to material if hand mixing smaller batches.

PLACEMENT:

Trowel or screed **LightningCrete** firmly into the prepared area, ensuring intimate contact with the bonding surface. Finish **LightningCrete** level with the surrounding concrete and allow it to take an initial set. After the initial set, when **LightningCrete** is surface hard, finish by hand troweling. Excessive troweling is not required.



CURING/DRYING TIME:

Finish the repair material to the desired texture to best match the surrounding concrete. Do not add additional water to the surface during finishing. Lightly spray **RepAid** as a finishing aid on this and any other polymer modified mortars to assist in finishing. **LightningCrete** is self-curing under most conditions. In severe drying conditions, use a curing compound or curing blanket.

CLEAN UP:

Tools and equipment can be cleaned with water before **LightningCrete** hardens.

PACKAGING:

Available in 65-pound multiwall paper bags with moisture barrier, 60-pound pails, and 2,000 pound bulk bags.

COLOR:

Light Gray

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:

The shelf life of properly stored, unopened bags in a dry facility is 12 months. Excessive temperature differential and/ or high humidity can shorten the shelf life.

LIMITATIONS:

Product is temperature sensitive regarding set time; Below 60°F set is slower, above 80°F is faster. In hot weather cool surface to patched with cold water and use cold water for mixing. Do not apply **LightningCrete** when dry product or surface temperature is below 40°F. Do not Use “antifreeze” or set accelerator solutions. Do not add any concrete additives, primers or bonders. Protect from precipitation and freezing for at least 4 hours.

CAUTION:

Contains Portland cement CAS#65997-15-1. Freshly mixed cement products may cause skin injury. Avoid contact with skin where ever possible and wash exposed areas promptly with water. If any product gets into eye, rinse immediately and repeatedly with water. If ingested, **do not induce** vomiting and get prompt medical attention. Also contains Sand CAS # 14808-60-7 Avoid breathing dust. Prolonged exposure to dust may cause delayed lung injury (silicosis) or cancer IARC Class 2A wear NIOSH approved mask for silica dust.

READ SDS PRIOR TO USING PRODUCT**KEEP OUT OF THE REACH OF CHILDREN****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 intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material that 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.

PHYSICALS:

Compressive Strength (ASTM C-109)	
2 Hours	4,000 psi
4 Hours	6,500 psi
7 Days	10,000 psi
28 Days	11,000 psi
Shear Bond Strength (ASTM C882a)	
24 Hours	3,000 psi
Shrinkage (ASTM C157)	
28 Days	-0.040%
Freeze Thaw (ASTM C666) 50 Cycles	Excellent
Splitting Tensile Strength (ASTM C496)	
24 Hours	640 psi
Initial Set	10 min
Final Set	30 min

