

Highway Patch – Fast Setting Horizontal Repair Mortar

DESCRIPTION:

Highway Patch is a Portland cement based rapid setting, rapid hardening concrete patching material that exhibits excellent flexural properties, shear bond strength and compressive strength. **Highway Patch** offers superior resistance to de-icing salts, petroleum products and other chemicals prevalent on concrete roadways. **Highway Patch** unique proprietary formulation develops high early strength with zero shrinkage and excellent durability.

USES:

- Bridge decks
- Highways
- Pavements
- Airport runways
- Warehouse floors
- Industrial parking
- Docks, and ramps.
- Commercial floors or any concrete surface.

FEATURES:

- Fast Setting
- Non-shrink
- High compressive, flexural, and bond strength
- Excellent freeze-thaw resistance
- Non-gypsum based
- Traffic in less than 2 hours

STANDARDS:

Meets ASTM C-928 for dry packaged rapid hardening cementitious materials for concrete repairs.

COVERAGE GUIDE:

Yield: 0.50 ft³/65 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 sandblasting or applying **TuffTex Rust Rehab** permanent rust converter any exposed steel, prior to repairing with **Highway Patch**. Have all necessary tools and materials as near work areas as

possible to permit rapid and continuous placement of **Highway Patch**. All surfaces to be repaired should be in a saturated surface-dry (SSD) condition with no standing water on the surface.

TYPICAL PROPERTIES:

Set Time (ASTM C191)

Initial 20 - 30 minutes

Final 30 - 40 minutes

Splitting Tensile Strength (ASTM C496)

28 Days 879 psi

Coefficient of Thermal Expansion

(TEX 428A) 28 Days 5.4x10⁻⁶

Modulus of Elasticity (ASTM C469)

MAX 3260 ksi

Absorption % (ASTM C497)

28 Days 6.4%

Compressive Strength (ASTM C39)

6 Hours 3460 psi

1 Day 4987 psi

7 Day 7500 psi

28 Days 8670 psi

Shear Bond Strength (ASTM C882)

3 Days 2261 psi

Freeze-Thaw Resistance

(ASTM C666 Proc A)

300 Cycles 95.7%

Shrinkage (ASTM C157)

28 Days (-) 0.03%



MIXING:

Highway Patch is mixed by adding the dry mixture to the

proper amount of clean, potable water as required. (3.5 – 4.0) quarts of water per 65 lb. bag). Mix **Highway Patch** using a heavy-duty drill with a Jiffy mixer. Mix until completely blended and free of lumps. **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. Mix at a low rpm speed for 2 1/2 to 4 total minutes. Mix **NO MORE** than can be placed in 20 minutes. Do not retemper after initial mixing

PLACEMENT:

Place **Highway Patch** in the repair area and level the mix to the surrounding pavement with an appropriate screeding device. Allow material to stiffen and finish to desired texture using a broom, brush or trowel.

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 **TuffTex RepAid** as a finishing aid on this and any other polymer modified mortars to assist in finishing and curing. **Highway Patch** is self-curing under most conditions. In severe drying conditions, **Highway Patch** should be cured with **TuffTex RepCure P** or an appropriate membrane forming curing compound.

Allow material to cure and strengthen for 2 hours before allowing traffic on patched area.

CLEAN UP:

Sprayers, Tools, and Equipment: Clean with water or **Green Clean** before material hardens.

PACKAGING:

Available in 65 pound multiwall paper bags with moisture barrier and 3,000 pound bulk bags.

COLOR:

Light Gray

CAUTION:

Contains Portland Cement CAS # 65997-15-1. Freshly mixed cement products may cause skin injury. Avoid contact with skin where possible and wash exposed areas promptly with water. If any product gets into the eye, rinse immediately and repeatedly with water. If ingested, do not induce vomiting and get prompt medical attention.

Keep Out Of Reach Of Children.

LIMITATIONS:

Product is temperature sensitive regarding set time; below 60°F set is slower, above 80°F set is faster. In hot weather, cool surface to be patched with cold water and use cold water for mixing. Minimum surface and ambient temperature of 45°F and rising is required at the time of application. In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices. Do not use "antifreeze" or set accelerator solutions. Do not add any concrete additives, primers, or bonders.

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.