

RepPatch VOH-XL One Component Polymer-Modified Vertical & Overhead Repair Mortar

DESCRIPTION:

RepPatch VOH-XL is a single component, polymer-modified, cement-based mortar designed to structurally repair and rehabilitate vertical and overhead concrete and masonry surfaces. The fast setting, low shrinkage, non-sag, and high strength of **RepPatch VOH-XL** allow it to be placed and sculpted to final shape in a single application from feather edge up to 6 inches in thickness, without the need for costly formwork.

FEATURES:

- High polymer modification provides a tenacious bond
- Rapid Hardening, 25 minute initial set
- Apply from featheredge up to 6" in a single application
- Includes fibers
- Non-sag, low slump
- Low shrinkage
- Freeze-thaw resistant
- No bonding agent or additives required

USES:

- Repairs in vertical and overhead surfaces
- Fast repair of bridges, pilings, and buildings
- Rebuild cornices and ornate precast without forming
- Repair piers, tunnels, precast concrete panels, and concrete pipes
- Horizontal application
- Structural applications

TECHNICAL DATA:

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

PACKAGING:

50 lb. (22.7kg) bag

COVERAGE GUIDE:

Approx. 0.45 cu.ft. / 50 lb. bag

PREPARATION: (See ICRI guidelines)

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.

Mechanically abrade the surface by grinding, abrasive blasting, or water blasting. **TuffTex PrepEtch™**, environmentally friendly liquid etcher, can be used as well to achieve an appropriate concrete surface profile. 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. It is recommended to apply **TuffTex Rust-Rehab™** permanent rust converter to the exposed steel, prior to repairing with **RepPatch VOH-XL**. All surfaces to be repaired should be in a saturated surface-dry (SSD) condition with no standing water on the surface.

MIXING:

Use **RepPatch VOH-XL** at a preconditioned temperature of approximately 73° F (23° C). Use 6.0 to 6.5pts (2.83 to 3.08 L) of clean water per 50lb (23kg) bag using a heavy-duty, slow-speed, 3/4 inch (19mm) drill and mixing paddle. Pour 6.0pts (2.83L) of clean water into a clean 5 gallon (19L) mixing bucket.

Mix while slowly add the powder, one-third at a time. If more water is needed, up to one-half pint (0.24L) may be added. Mix up to 4 minutes to a uniform lump-free consistency. Avoid over mixing which could entrap air.



APPLICATION:

Apply only to sound and clean properly prepared frost-free surfaces. Dampen the area to be repaired so that the pores of the concrete are filled with water. Remove any ponding or glistening water on the surface (saturated surface dry/SSD).

IMPORTANT BOND ENHANCEMENT: Work a scrub coat of the mixed material into the substrate to ensure intimate contact and establish bond. Complete the repair while the scrub coat is still wet and trowel to the desired finish. **RepPatch VOH-XL** can be applied to a thickness of 2 inches (51mm) in one lift. For application depths greater than 2 inches (51mm) apply **RepPatch VOH-XL** in successive lifts. For additional lifts, scarify the first lift and allow it to set until hardened sufficiently to accept the next lift, about 30 minutes at 73° F (23°C). Trowel the final lift to the desired finish. Applications made during temperatures below 50°F (10°C) or above 85°F (29°C) should follow appropriate application guidelines.

Application Temperature Range
40°F (4°C) to 90°F (32°C)

CURING:

Direct sun or wind may cause unwanted rapid surface drying. Curing may be accomplished with **RepCure P** or by continuous water fogging for 48 hours or cover with damp burlap or curing blankets. Do not use solvent-based curing compounds. If a coating or sealer will be applied, prep finished surface per manufacturer's recommendations.

CLEAN UP:

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

COLOR:

Concrete Gray

PHYSICALS:	
Working Time	20-30 minutes
Set Time (ASTM C266)	
Initial	25 minutes
Final	45 minutes
Shear Bond Strength (ASTM C882)	
1 day	2,200 psi (17.2 MPa)
7 days	3,000 psi (20.7 MPa)
Compressive Strength (ASTM C109)	
1 day	4,500 psi (31.0 MPa)
7 days	7,000 psi (48.3 MPa)
28 days	9,900 psi (62.1MPa)
Shrinkage (ASTM C157)	
Air Cure	-0.016%
Water Cure	-0.022%
Salt Scaling (ASTM C672)	None

STORAGE:

Store in a cool, dry area away from direct sunlight.

SHELF LIFE:

The shelf life of unopened bags stored in a dry facility is 24 months. An excessive temperature differential and/or high humidity can shorten the shelf life expectancy.

LIMITATIONS:

- Apply only when the surface and ambient temperature are 45-50°F (7-10°C) and rising. See Cold Weather Application guidelines, per ACI, for applications in temperatures less than 50°F (10°C). Applications made during temperatures greater than 85°F (29°C) should follow Hot Weather Application guidelines, per ACI.
- Do not add more water than specified.
- Do not add additional powder from other units
- Do not over mix

FIRST AID:

In case of eye contact, flush thoroughly with water for at least 15 minutes, and Seek medical attention. In case of skin contact, wash affected areas with soap and water. If the irritation persists seek medical attention. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If the discomfort persists, breathing difficulty occurs, or if swallowed seek medical attention. Refer to Safety Data Sheet (SDS) for further information.

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** 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.

