



FX-293

Calcium Aluminate Repair Mortar

DESCRIPTION:

FX-293 Calcium Aluminate Repair Mortar is a one component patching mortar designed for repair in the municipal wastewater industry. **FX-293** is a blend of CA cement special additives, fibers and aggregates which provides high-strength, corrosion-resistant protection against corrosion caused by hydrogen sulfide (H₂S) found in wastewater environments. **FX-293** sets fast and makes a cohesive mortar with high early flexural and compressive strengths. It contains no Portland cement or its hydrates (calcium hydroxide).

ADVANTAGES:

- Excellent resistance to hydrogen sulfide
- Excellent workability and cohesiveness resulting in both a high-strength and corrosion resistant mortar
- Excellent bond to clean concrete and masonry surfaces
- Can be applied in layers up to 2" thick
- Fiber reinforced for high tensile strength
- Extremely good abrasion resistance
- High early strengths

WHERE TO USE:

Overhead and vertical patching mortar for: Manholes, sewers, waste water plants

PHYSICAL PROPERTIES:

Initial Set Time @ 72°F	20 minutes
Final Set Time	60 minutes
Color	Concrete Gray
Compressive Strength	ASTM C 109
24 hours	6,000 psi
7 days	7,500 psi
28 days	9,000 psi
Flexural Strength	ASTM C 293
28 days	850 psi
Bond Strength/Slant Shear	ASTM C882 (Modified)
7 days	2,500 psi
Scaling Resistance, lbs/ft ²	ASTM C-672
25 cycles	0

SURFACE PREPARATION:

Remove all dirt, grease, oil, laitance and curing compounds from concrete, mortar and stone by sandblasting or mechanical roughening. On metals, remove grease, oil, rust and mill scale by abrasive blasting or wirebrushing.

MIXING:

Pour 115 fluid oz. of water in pail or mortar mixer. In pail,

mix with a slow speed drill and paddle, while adding **FX-293** powder slowly to avoid lumps. (Do not over mix; three minutes is sufficient). If a more plastic consistency is required, add additional water to mix. Should small quantities be required, be sure to use smaller quantities of water. Masonry surfaces or other absorbent surfaces should be dampened but free of standing water.

APPLICATION:

Lowest application temperature is 32°F at the time of application. Be sure mortar is mixed thoroughly to a uniform consistency. Pre dampen masonry surface to which **FX-293** is applied. Trowel **FX-293** in prepared area and allow mortar to stiffen, then produce desired finish by using float or rubber gloves, forcing mortar in voids. If steel trowel finished is required, wet trowel with water.

Recommended installation thickness is a minimum 1/2-inch in manhole applications and a 1-inch minimum in larger, more critical structures. **FX-293** should be protected from wind and heat for the first 24 hours. Damp curing or use of a curing compound such as **FX-15**, that meets the ASTM C-309 standard, may be necessary to prevent rapid drying of **FX-293**. Curing compounds may need to be removed prior to coating. Replace manhole cover as soon as mortar application is complete.

LIMITATIONS:

Store in cool, dry place. Material should be stored at temperature of 40°F (4.4°C) or higher. Water temperature for cold weather applications shall not exceed 85°F. No thermal blankets or heating of surfaces to be patched is required. Below 60°F, loading time is to be extended by 30 minutes for each 10 degrees below 60°F.

PACKAGING:

60 pound bags or 5 gallon plastic pails. Yield is approximately 0.50 cubic feet per 60 lbs.

SHELF LIFE:

1 year in dry protected storage. It must be covered and stored in a weather-protected area, free from moisture.

CAUTION:

Cement powder or freshly mixed concrete, grout or mortar may cause skin injury. **FX-293** contains silica sand. Avoid breathing dust and contact with skin; wash exposed areas promptly with water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water. Get prompt medical attention! Use a NIOSH approved dust mask when needed.

FOR INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN. 3/2010