

TechnoCrete™HFC

Polymer Modified Traffic Bearing Repair Mortar

TECHNOPOL
مقاوم سازی تکنوپل

PRODUCT DESCRIPTION

TechnoCrete™HFC is a single component, fast setting and hardening thixotropic repair and bedding mortar, a ready-to-use material that contains sulphate resistant Portland cement, hydraulic binders, well graded sands, specially selected polymer fibers and special additives provide rapid strength build-up even at sub-zero temperatures, improved durability and un-matched, low drying shrinkage.



Buildings
Structures



Transportation
Infrastructure



Water &
Wastewater



Oil, Gas &
Industrial



Waterfront
Structures



Industrial
Facilities

TECHNICAL DATA

	Unit	TechnoCrete™HFC
Fresh Mortar Density	gr/cm ³	2.25
Chloride ion Content	%	<0.05
Modulus of Elasticity	GPa	35
Compressive Strength	+20°C	-5°C
2 hrs.	31	8
4 hrs.	47	19
1 day	61	55
7 days	80	80
28 days	91	85
Flexural Strength	MPa	
1 day		>7
7 days		>8
28 days		>10

PHYSICAL PROPERTIES

Color		Gray
Grain Size	mm	3.1
Layer Thickness (Min)	mm	10-25
Layer Thickness (Max)	mm	100-150

ADVANTAGES

- Structures can be opened to traffic in 2 hour
- Very high initial strengths
- Extended working time
- Very high bond strengths
- High freeze/thaw resistance
- Very high resistance to hydrocarbons.
- Extra low shrinkage for durability.

TYPICAL USES

- Interior and exterior
- Bedding small to medium size manhole frame.
- Horizontal patch repair areas
- Inclined patching repair areas
- Horizontal surfaces
- Applications requiring high early-strength gain
- Structural concrete repairs
- Partial and full-depth repairs

MIXING

Pour the clean tap water in the mixing container and afterwards, while mixing, add approx. 2/3 of the TechnoCrete™HFC powder slowly and steadily into the water.

After 1 minute, add the rest of the powder and mix continuously until a homogenous mortar is obtained. The total mixing time is 3 to 4 minutes until a homogenous, plastic consistency is obtained. Only use clean uncontaminated water.

INSTALLATION PROCEDURE

PREPARATION OF SUBSTRATE

Substrate must be structurally sound and fully cured (28 days).

All loose traces of concrete or mortar, dust, grease oil, etc. must be removed.



Damaged or contaminated concrete should be removed to obtain a keyed surface. Non-impact/vibrating cleaning methods, e.g. shot blasting, sandblasting or high water pressure blasting are recommended. Aggregate should be clearly visible on the surface of the concrete structure after surface preparation.

APPLICATION

- Interior and exterior
- Horizontal surfaces
- Applications requiring high early-strength gain
- Place TechnoCrete™HFC onto the pre-dampened substrate and overfill to allow for compaction.
- Place TechnoCrete™HFC onto the substrate, which is already primed by bonding slurry. Scratch the mortar into the roughness of the substrate.
- Structural concrete repairs

HANDLING

Approved personal protection equipment should be worn at all times. for example, do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed. Particle mask is recommended for possible airborne particles. Gloves are recommended when handling mortar to avoid skin irritation. Safety glasses are recommended to prevent eye irritation. Wear chemical resistant clothing/gloves/goggles. Ventilate area. In absence of adequate ventilation, use properly fitted respirator.

FAIRST AID

Skin

Wash fibers off skin with water and soap. If fibers are embedded in the skin, remove with tweezers. Discard clothing that may contain embedded fibers. Seek medical advice if exposure results in adverse effects.

Eyes

Immediately flush with a continuous water stream for at least 20 minutes. Washing immediately after exposure is expected to be effective in preventing damage to the eyes. Seek medical advice.

Inhalation

If there is inhalation exposure to the fibers of this product, remove source of exposure and move victim to fresh air. If victim is not

breathing, give artificial respiration. If there is breathing difficulty, give oxygen. Seek medical advice for any respiratory problems.

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