



STRUCTUROC HT

High Strength Rapid Setting Mortar for Horizontal Repairs

STRUCTUROC HT is fast setting, high strength, high temperature resistant repair mortar that produces a rapid and permanent repair for concrete. STRUCTUROC HT is dimensionally stable and forms an integral bond with the existing concrete to restore its structural integrity. STRUCTUROC HT is designed for horizontal repairs. STRUCTUROC HT can be placed at thicknesses ranging from 25mm (1") to 75mm (3") mm in one single operation. This product can be extended with up to 50% of clean dry 10 mm (3/8") granitic or clean pea gravel aggregate to then produce a rapid setting concrete for repair. The maximum thickness can then be increased up to 300 mm (12").

■ USES

Repair of spalled or damaged concrete floors due to high temperature exposure, abrasion, wear and other damage factors.

TYPICAL USES:

- Concrete repairs located near industrial furnaces or other areas exposed to heat (up to 550°C / 1000°F)
- Fast repair and return to service of damaged industrial concrete floors
- Repair and creation of concrete slopes, drains and trenches
- Repair of concrete walls, bases, pads and columns

■ SURFACE PREPARATION

Proper repairs depend upon a solid bond between mortar and base surface. Thoroughly clean and roughen subject area. Remove any curing compound, grease, oil, loose carbonated concrete, dirt, rust, and other contaminants from exposed slab. Remove all damaged concrete to obtain a sound clean concrete surface in a sawcut perimeter to a depth of at least 25 mm (1"). If possible, saturate surface area with clean potable water at least 12 hours prior to applying mortar. During application, area should be saturated but free of standing water.

■ PRODUCT FEATURES

- Resistant to high temperatures, up to 550°C
- Very high early strength, accepts foot traffic in 2 hours
- Meets or exceeds ASTM C928-92A requirements
- Permanent repair of concrete
- Excellent bond strength
- Dimensionally stable
- Virtually no drying shrinkage
- Can be applied at variable thicknesses
- Freeze/thaw resistant
- Wear resistant
- Accept an epoxy coating or membrane 12hrs following the installation

■ PRIMING

No primer required.

PHYSICAL MATERIAL PROPERTIES @ 22.2°C (72°F)

COMPRESSIVE STRENGTH ASTM C-109-93, 2" (50 MM) CUBES		
1 hour	13.8 MPa	(2,000 psi)
3 hours	27.6 MPa	(4,000 psi)
1 day	41.4 MPa	(6,000 psi)
3 days	51.7 MPa	(7,500 psi)
7 days	55.2 MPa	(8,000 psi)
28 days	66.6 MPa	(9,600 psi)
FREEZE/THAW RESISTANCE ASTM C666 B MODIFIED		
Cycles	Durability factor (RDF)	
300	94.0 %	
FLEXURAL STRENGHT ASTM C78		
7 days	8.2 MPa	(1,200 psi)

HARDENING		
Working time	ASTM C-191	20 minutes
Initial set time	ASTM C-191	22 minutes
Final set time	ASTM C-191	32 minutes
BOND STRENGTH ASTM C-882		
1 day	17.9 MPa	(2,600 psi)
7 days	20.7 MPa	(3,000 psi)
SCALING RESISTANCE ASTM C-672		
50 cycles	0	Loss 97 gr/m ²
LENGTH CHANGE ASTM C157 WITH C928 MODIFICATION		
Time	Air cure	Water cure (immersion)
7 days	- 0.0520 %	- 0.0005 %
28 days	- 0.0620 %	- 0.0140 %



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for Horizontal Repairs

■ PRODUCT MIXING

- Place mixers close to repair area. Approximate initial set of STRUCTUROC HT is 22 minutes @ 22.2°C (72°F).
- Therefore mix only an amount that can be placed and finished before initial set.
- Place recommended amount of clean water into mixer, add STRUCTUROC HT, mix for 2 minutes (if extended add aggregate) and continue to mix until a smooth mixture is obtained.
- Dispense directly into worksite wheelbarrows.
- Discard any material that stiffens.
- Do not retemper.
- For large pours or temperatures that are below 5°C or above 35°C, contact your local BMQ SOLUTIONS representative.

■ PRODUCT APPLICATION

PLACING

No bonding agent is required for STRUCTUROC HT. Immediately upon completion of mixing, place material in repair area. Place starting from one side of site only, NOT toward middle from opposite directions.

FINISHING

Level and screed material to proper height. Float edges with wooden or magnesium trowel only.

■ CURING

As soon as the repaired surface has sufficiently hardened apply water and wet burlap or rags to finished area and cover with polyethylene or keep water ponded on patch, for a minimum of 2 hours.

■ ESTIMATING / YIELD

STRUCTUROC HT is packaged in 22.7 kg (50lb) bags and will yield 12 L (0.42 ft³) of material when mixed with 2.3 L of potable water which will cover approx. 0.5 m² (5.5 ft²) when applied at a thickness 25 mm (1").

COVERAGE PER 22.7KG (50LB) BAG:

Nominal Thickness	Approximate Coverage
25 mm (1")	0.5 m ² (5.5 ft ²)
50 mm (2")	0.255 m ² (2.275 ft ²)
100 mm (4")	0.128 m ² (1.375 ft ²)

■ PRECAUTIONS / RESTRICTIONS

- Apply to pre saturated surface only
- Do not apply on fresh concrete
- Do not apply at temperature under 5°C
- Do not add admixture to this product
- Applications exceeding 75 mm (3 in) in thickness require the addition of aggregate
- For applications near ovens we recommend a minimum thickness of 25 mm (1")

■ PACKAGING

STRUCTUROC HT:

Bags 22.7 kg (50 lbs)
Qty: 56 bags per pallet

■ RECOMMENDED TOOLS

The following tools will assure a cost effective, satisfactory installation:

- Steel, Wooden or Magnesium Trowels
- 3/4" Heavy Duty drill with mixing paddles
- Mortar mixer (for large volume)

■ CLEANING

Use water to clean all tools immediately after use.

■ STORAGE

Store in cool dry area avoiding all moisture.
Can be kept in unopened bags for 12 months.

■ SAFETY

See Material Safety Data Sheet.

Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. Avoid breathing dust.