

SOLHYDROC

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 (1in) to 75mm (3in) 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 in).

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

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

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.

PRIMING

No primer required.

PRODUCT MIXING

Place mixers close to repair area. Approximate initial set of **STRUCTUROC HT** is 22 minutes @ 22.3°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 **SOLHYDROC** representative.

PHYSICAL MATERIAL PROPERTIES @ 21°C (70°F)

COMPRESSIVE STRENGTH ASTM C109-93 2" (50 MM) CUBES		
1 hour	13.8 MPa	(2000 psi)
3 hours	27.6 MPa	(4000 psi)
1 day	41.4 MPa	(6000 psi)
3 days	51.7 MPa	(7500 psi)
7 days	55.2 MPa	(8000 psi)
28 days	66.6 MPa	(9600 psi)
FLEXURAL STRENGTH ASTM C78		
7 days	8.2 MPa	(1200 psi)
FREEZE/THAW RESISTANCE ASTM C666 B MODIFIED		
Cycles	Durability factor (RDF)	
300	96%	
BOND STRENGTH ASTM C882		
1 day	17.9 MPa	(2600 psi)
7 days	20.7 MPa	(3000 psi)
HARDENING		
Working time	20 minutes	
Initial set time ASTM C191	22 minutes	
Final set time ASTM C191	32 minutes	
SCALING RESISTANCE ASTM C672		
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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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 22.7 kg (50 lbs) bag.

<i>Nominal Thickness</i>	<i>Approximate Coverage</i>
25 mm (1")	0.5 m ² (5.5 ft ²)
50 mm (2")	0.255 m ² (0.275 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.

SECURITY

See Material Safety Data Sheet.

SOLHYDROC WARRANTS that the product conforms to its chemical description and is reasonably fit for the purpose stated on its Technical Bulletin when used in accordance with its directions. SOLHYDROC makes NO OTHER WARRANTY either expressed or implied. Buyer assumes all risk in handling.

For Professional Use Only

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