

## SOLHYDFLOW THT

High Strength, High Temperature Resistant, Rapid Setting Mortar for Horizontal Repairs

**SOLHYDFLOW THT** is fast setting, high strength, high temperature resistant repair mortar that produces a rapid and permanent repair for concrete. **SOLHYDFLOW THT** is dimensionally stable and forms an integral bond with the existing concrete to restore its structural integrity. **SOLHYDFLOW THT** is designed for horizontal repairs. It can be placed at thicknesses ranging from 37 mm (1-1/2") to 150 mm (6") in a single operation.

### 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 high heat (up to 700°C / 1300°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 700°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

### 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 saw cut perimeter to a depth of at least 37 mm (1-1/2"). 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.

### ESTIMATING/YIELD

**SOLHYDFLOW THT** is packaged in 22,7 kg (50 lbs) bags and will yield 12L (0,42 ft<sup>3</sup>) of material when mixed with with 2,4 L of potable water which will cover approx. 0,34 m<sup>2</sup> (3,66 ft<sup>2</sup>) when applied at a thickness of 37 mm (1-1/2").

#### Coverage: Per 22,7 kg (50 lbs) bag.

Nominal Thickness	Approximate Coverage
37 mm (1-1/2")	0,34 m <sup>2</sup> (3,66 ft <sup>2</sup> )
50 mm (2")	0,255 m <sup>2</sup> (2,75 ft <sup>2</sup> )
100 mm (4")	0,128 m <sup>2</sup> (1,375 ft <sup>2</sup> )

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

COMPRESSIVE STRENGTH [(ASTM 109*, 2" (50 MM) CUBES] @ 72°F (22.2°C)		
Time	MPa	PSI
1 hour	11,6	1700
3 hours	23,5	3400
1 day	38,0	5500
3 days	50,1	7300
7 days	54,3	7800
28 days	61,8	9600
FLEXURAL STRENGTH ASTM C78		
7 days	8,2 MPa	1200 PSI
FREEZE / THAW RESISTANCE ASTM C-666 B		
Cycles	Durability factor (RDF)	
300	96 %	

BOND STRENGTH ASTM C-882		
1 day	17,9 MPa	2600 PSI
7 days	20,7 MPa	3000 PSI
HARDENING		
Working time	20 minutes	
Initial set time ASTM C-191	22 minutes	
Final set time ASTM C-191	32 minutes	
SCALING RESISTANCE ASTM C-672		
50 cycles	0	Loss 97 gr / m <sup>2</sup>
LENGTH CHANGE ASTM C-157 WITH C-928 MODIFICATION		
Time	Air cure	Water cure (immersion)
7 days	-0,007 %	-0,0005 %
28 days	-0,062 %	-0,0082 %

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### ■ 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
- For applications near ovens we recommend a minimum thickness of 37 mm (1-1/2")
- For applications exceeding 150 mm (6") it is recommended to add granit aggregate to the mix. Please consult your **SOLHYDROC** representative for recommendations on the quantity and type of aggregate to be added.

### ■ PRODUCT MIXING

Place mixers close to repair area. Approximate initial set of **SOLHYDFLOW THT** 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 **SOLHYDFLOW THT**, 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.

### ■ PRODUCT APPLICATION

#### PLACING:

No bonding agent is required for **SOLHYDFLOW THT**. 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.

### ■ PACKAGING

**SOLHYDFLOW THT** 22,7 kg (50 lbs) bags  
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.

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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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