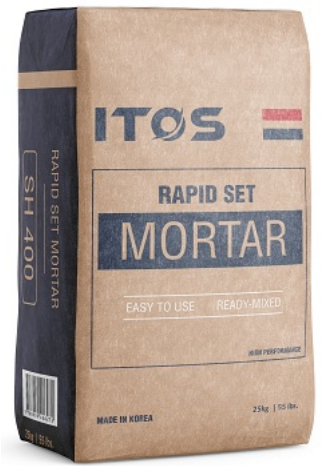


ITOSTM SH 400

High Strength, Structural Repair Fast-Setting Mortar

Standard Specification



CHARACTERISTIC RATINGS

	Min	Max
Non-Shrink	3	
Self Leveling	3	
Water resistant	2	
Expansion	3	
Early strength	5	

1 = Minimum
2 = Low
3 = Moderate
4 = High
5 = Extreme

MORTAR PRODUCT LINE

DESCRIPTION

SH 400 is a high-performance, fast-setting, multipurpose repair material. Durable in wet environments, SH 400 is a blend of Fast-Setting hydraulic cement and quality aggregates. SH 400 is non-metallic, and no chlorides are added. SH 400 with water to produce a workable, high quality mortar material that is ideal where fast strength gain, high durability and low shrinkage are desired. SH 400 sets in 15 minutes and achieves structural strength in 1 hour.

USE INCLUDE

Use SH 400 for general and structural concrete repair, construction of pavements, stucco and plaster repair, one-coat exterior plaster, underlayment and formed work. SH 400 is a versatile product that is suitable for vertical and overhead applications. For freeze thaw durability, in some geographical areas, SH 400 contains an air-entraining admixture.

PREPARATION

For repairs, application surface must be clean, sound and free from any materials that may inhibit bond, such as oil, asphalt, curing compound, acid, dirt and loose debris. Roughen surface and remove all unsound material. Apply SH 400 to a thoroughly saturated surface with no standing water.

MIXING

The use of a power-driven mechanical mixer, such as a mortar mixer or a drill mounted mixer, is recommended. Organize work so that all personnel and equipment are in place before mixing. Use clean potable water. SH 400 may be mixed using 3 to 3.75 quarts (2.8 L to 3.5 L) of water per 55-lb (25-kg) bag for Department of Transportation projects and other critical applications. For general purpose applications, a maximum of 5 quarts (4.7 L) may be used. Use less water to achieve higher strengths. Place the desired quantity of mix water into the mixing container. While the mixer is running, add SH 400. Mix for the minimum amount of time required to achieve a lump-free, uniform consistency (usually 1 to 3 minutes).

APPLICATION

Apply SH 400 in thicknesses from 1/2" to 6" (1.2 cm to 15.2 cm). Not intended for high heat applications above 300°F (149°C). For overlay applications, a minimum of one test section should be prepared to evaluate the suitability of the materials and procedures.

PLACEMENT

SH 400 may be placed using traditional construction methods. Organize work so that all personnel and equipment are ready before placement. Place, consolidate and screed quickly to allow for maximum finishing time. Use a method of consolidation that eliminates air voids. Do not wait for bleed water; apply finishing as soon as possible. SH 400 may be troweled, located or broom finished. On let work, do not install in layers. Install full-depth sections and progress horizontally. Do not install on frozen surfaces. SH 400 may be applied in temperatures ranging from 45°F to 90°F (7°C to 32°C).

CURING

Water cure all SH 400 installations by keeping exposed surfaces wet for a minimum of 1 hour. Begin curing as soon as the surface starts to lose its moist sheen. When experiencing extended setting time due to cold temperature or the use of retarder, longer curing times may be required. The objective of water curing shall be to maintain a continuously wet surface until the product has achieved sufficient strength.

Continued..



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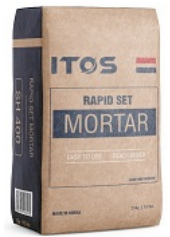
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MORTAR PRODUCT LINE

TOOL CLEANING

Clean all equipment and tools with water immediately after use.
The hardened material can only be removed by physical scraping.

COVERAGE

(Base weight : 55lb / 25kg)

	Coverage
	(ft ³)
Minimum total consumption	0.5

Coverage rates may vary depending on substrate conditions.
Wet and dry thicknesses are always equivalent.

PACKAGING

25 kg Kraft Paper bag (Pallet 64 bags, 1600 kg, protected by plastic bag wrapping)
25.6MT/20'container, 1024 bags/container

SHELF LIFE

The shelf life is 6(min) ~ 12(max) months when stored unopened in dry, normal conditions.
Excessive temperature differential and/or high humidity can shorten the shelf life expectancy.
Store in a cool, dry area away from direct sunlight.

PRODUCT DATA

Appearance	Powder type
Color type	Grey type
Dry bulk density	~ 1400 kg/m ³
Maximum aggregate size	< 2mm

TECHNICAL DATA

Set Time	Initial set	15 minutes
	Final set	30 minutes
Compressive Strength	1 hour	2500 psi (17.2 MPa)
	3 hours	4000 psi (27.6 MPa)
	1 day	5000 psi (34.5 MPa)
	7 days	5500 psi (37.9 MPa)
	28 days	6500 psi (44.8 MPa)
Slant Shear Bond Strength	1 day	1200 psi (8.27 MPa)
	28 days	2200 psi (15.2 MPa)
Splitting Tensile	7 days	450 psi (3.10 MPa)
	28 days	550 psi (3.79 MPa)

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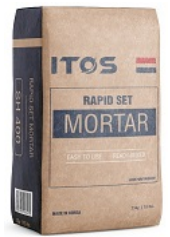
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TECHNICAL DATA

Flexural Strength	28 days	550 psi (3.79 MPa)
Freeze Thaw	Durability factor	95%
Length Change	28 days in air	-0.04
	28 days in water	0.02

LIMITED WARRANTY

ITOS Co., Ltd. warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase. The above remedies shall be the limit of ITOS's responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. ITOS shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.

SPECIAL OFFER

!!! We can provide it by changing it to the specifications you want.

MORTAR PRODUCT LINE

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