

ITOSTM SH 100

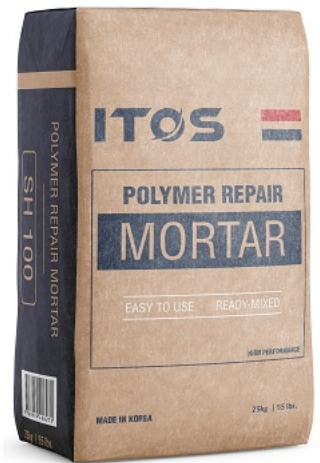
Polymer-Modified, Structural Concrete Patching and Repair Mortar

Standard Specification

CHARACTERISTIC RATINGS

	Min	Max
Non-Shrink	4	
Self Leveling	2	
Water resistant	4	
Expansion	4	
Early strength	2	

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



MORTAR PRODUCT LINE

DESCRIPTION

SH 100 is a thixotropic, fiber-reinforced, structural cement mortar for protecting and repairing concrete structures. Its physical and mechanical properties allow to correct large irregularities in the substrate with a rapid intervention. The product can be used for repairing reinforced concrete structures such as front panels of balconies, beams, columns, stringcourses, moulding, cornices and fair faced concrete surfaces. It is easily applied using a continuous plastering machine and is suitable for large surfaces such as drainage channels, dams, bridges, water pipes, tanks, containment structures made of reinforced concrete.

USE INCLUDE

- **General Concrete Structure**
Concrete floor repair works, Road median strip, Gutter drainage, Passage BOX, Drainage facility A bridge deck, Abutment, Pier, Foundation, Barrier of overpass, Median strip, Slab, Beam, Column, etc. The soccer structure that requires repair and reinforcement of concrete
- **Water Treatment Structure**
A reservoir that requires ozone in a water purification plant, Sewage treatment plant, Water reservoirs at sewage and Wastewater treatment plants, Sewage culling of industrial complexes, Dam and Drainage deck door, Agricultural waterways, Port facilities, Swimming pool, etc. A structure that requires long-term exposure by chemical erosion, seawater, or fresh water.
- **Underground Structure**
Underground Roadway, Underground Common District, Underground Reservoir, Raw material Storage Tank, Distributing Reservoir. Structures requiring countermeasures against high resistance and vibration

PREPARATION

The substrate must be clean, sound and free from all grease, oil, dust and other surface contaminants such as curing membranes. Damaged or contaminated concrete must be removed to obtain a good bond to the substrate. Cut the edges of the repair vertically to a minimum depth of 10mm. All surface laitance must be removed. Exposed reinforcing steel should be cleaned to remove all residual rust and concrete residue.

MIXING

SH 100 can be applied via mechanical projection using a plastering machine for premixed products or by hand. For manual application, mix the product adding approx. 5-6 liters of clean water to a 25 kg bag of SH 100 in a cement mixer.

Measure the appropriate amount of water into a clean suitable sized pail and then add approximately half to two-thirds of the powder to the water while mixing with a heavy-duty electric drill and spiral mixing paddle on slow-medium speed (approx. 400-600 rpm). Mix to fully wet-out the powder; then, add the remaining powder fully mixing to disperse the powder. Once all of the powder has been added, mix for approximately 2 to 3 minutes to fully homogenize. Let the mixed mortar sit for 1 – 2 minutes, then briefly mix the mortar again prior to placement.

APPLICATION

SH 100 is to be applied onto the prepared primed substrate. Make sure that the patching mortar is applied whilst the priming layer is still wet (wet-on-wet). Apply using a trowel or by hand (wearing chemically resistant gloves). Make sure that the material is sufficiently forced and compacted into cracks and holes to ensure that all voids are filled.

Minimum application thickness is 10mm. If repair mortar slumps, remove all SH 100 and re-apply after re-priming the substrate, then apply the repair mortar at a reduced thickness.

For thicknesses above 30 mm, we recommend the use reinforcement anchored at an adequate distance from the media. Repair or consolidation mortar must be applied ensuring total coverage of the cavities and the incorporation of reinforcement bars. Remove any smudges or excess product by scraping and sanding. The prepared surfaces are then suitable for treating with finishing products.

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FINISHING

Once the mortar has set, and the surface is hard enough, work can begin on the surface finish. The surface finish can be dense and smooth by using a wooden or plastic float, or coarse and sandy by using a sponge to give the required effect.

CURING

It is recommended to apply an approved curing compound immediately after finishing. Curing compounds should be sprayed onto the surface of the finished SH 100.

TOOL CLEANING

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

COVERAGE

13.5 litres per 25kg bag.
A 25kg bag covers 1.35m² at 10mm thickness.

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.

WARNING!!! Do not use SH 100 when the temperature is below 5°C, in the presence of strong wind, rain or in direct sunlight. In summer months, the temperature when applying must not be above + 30°C. Do not apply to surfaces that are frozen, dusty, inconsistent or unstable.

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	30 minutes
	Final set	60 minutes
Compressive Strength	1 day	2500 psi (17.2 MPa)
	3 days	3700 psi (25.5 MPa)
	7 days	5000 psi (34.5 MPa)
	28 days	6100 psi (42.1 MPa)
Bond Strength	1 day	1000 psi (6.9 MPa)
	28 days	2000 psi (13.8 MPa)

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TECHNICAL DATA

Expansion	Water	0.06 %
	Air	0.00 %
Flexural Strength	28 days	1700 psi (11.7 MPa)

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.

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