MASTERING TECHNOLOGY AND PRACTICALITY

ST-SG

Sewer Guard

Excellent corrosion resistance to salt water, diluted acids and alkalis

Anti-corrosion fibre reinforced to prevent cracking

Restore or extend service lives of concrete in sewer systems

Rapid curing and high early strength to allow early opening to service

Can be applied by machine spray or hand trowel

Strong adhesion with substrate

Suitable for structural and non-structural applications

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ST-SG
Sewer Guard

PRODUCT DESCRIPTION
ST-SG is a single component ready-to-use pre-bagged mortar with outstanding chemical resistant property through adoption of special binders' technology for protecting structures in sewer systems from chemical and biogenic attack by wastewater. ST-SG is to be applied as a protective layer on top of concrete or brick substrate with minimum thickness of 15 – 25 mm depending on the expected corrosiveness of the wastewater to be exposed. It can be applied either by hand trowel or machine spray. The fiber reinforced matrix of ST-SG is able to provide structural strengthening effect to substrate substructures.

AREAS OF APPLICATION
- Sewer pipes
- Manholes in sewer system
- Sewerage tanks
- Sewerage treatment facilities
- Other concrete structures exposing to sewerage or chemical attack
- Consult Ardex Scoretech staff for other applications

SUBSTRATE PREPARATION
Substrate should be concrete of Grade 25 or above to provide adequate robustness for receiving ST-SG. Spatterdash is preferable, particularly for relative smooth concrete surface to ensure firm adhesion key for ST-SG. Substrate shall be cleaned to remove all dust, oily substance, loose particles, surface contaminations and any material or defect that may affect the adhesion of ST-SG as far as possible. The substrate shall be fully moistened before applying ST-SG.

INSTALLATION
1. Thoroughly wet the concrete surface and start applying ST-SG when the surface is still damp.
2. Mix ST-SG with the recommended water addition (depending on the application method) by either electric hand drill mixer or in wet spray machine.
3. Apply the well-mixed ST-SG by hand trowel or spray machine/spinning head sprayer onto the substrate to build up the required thickness in layer(s) of ~ 5 – 15 mm each.
4. Level up the applied ST-SG to the required overall thickness.
5. Leave the surface as coarse or semi-coarse finish or smoothly troweled surface depending on the required texture.
6. Precaution shall be taken to prevent contamination of ST-SG with Ordinary Portland cement (OPC) throughout the installation.
5. Please refer to the method statement provided by Ardex Scoretech for details.

CURING
Leave the applied ST-SG for natural curing. In the case of under direct sunlight or ventilated space, use of resin-based curing compound is preferred to minimize the moisture loss from ST-SG in order to achieve the best performance.

PACKAGE
25 kg bag

SHELF LIFE
ST-SG has a shelf life of 6 months if well-kept in dry condition on lifted floor.

HEALTH & SAFETY
A qualified mask or equivalent personal protective equipment must be worn when handling this product. This product is non-toxic and does not contain harmful substances, but may cause allergies or irritation to eyes and skin. If it accidentally comes into contact with eyes, rinse immediately with plenty of water and seek for medication as soon as possible.

REFERENCE STANDARDS
- European Standard
  EN 1015; EN 1348; EN 1097-6
- American Standards
  ASTM C596; ASTM C1138;
  ASTM C1012; USEPA Method 24

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PRODUCT INFORMATION

Colour	Khaki grey
Maximum Grain Size	2.0 mm
Density	Dry: ~2200 ± 200 kg /m³ Wet: ~ 2300 ± 200 kg/ m³
Coat Thickness	5 – 15 mm for 1 coat 15 – 30 mm for 2 coats
Coverage	~ 2.1 kg/ m^2/ mm
Water Demand	~ 3.5 – 4 L / 25kg bag
Pot Life	~ 30 – 60 minutes

PRODUCT PERFORMANCE

Performance	**Test Standard**	**Result**
Compressive Strength at 28 days	EN1015-11	≥ 40 N/mm^2
Flexural Strength at 28 days	EN1015-11	≥ 4 N/mm^2
Adhesion to Concrete - Initial adhesion strength - After water immersion - After heat ageing - After freeze-thaw cycles	 EN1015-12 EN1015-12 & EN1348 EN1015-12 & EN1348 EN1015-12 & EN1348	 ≥ 1.5 N/mm^2 ≥ 1.0 N/mm^2 ≥ 1.0 N/mm^2 ≥ 1.0 N/mm^2
Drying Shrinkage	ASTM C596-07	≤ 0.08% after 25 days of air drying
Abrasion Resistance	ASTM C1138-12	≤ 0.3 cm after 72 hours abrasion
Length Change in Sulphate Solution	ASTM C1012/C1012M-15	≤ 0.08% after 15 weeks
VOC Content	USEPA Method 24	≤ 20 g/L

* Note: The test standards for the product performance stated above refer to laboratory test only.