

Polymer Modified Mortar 40 MPa

ST-PMM(40)

General purpose Grade 40 polymer modified cementitious mortar for spalling repair and patching up work of concrete in exterior and interior conditions.



PRODUCT DESCRIPTION

ST-PMM(40) is a grade 40 cementitious pre-bagged high quality polymer modified mortar with enhanced adhesive strength and compressive strength for spalling repair and patching up work of concrete. ST-PMM(40) can be applied either by hand or by spray to repair concrete on vertical surfaces and is also suited to repair soffits and other overhead repair work. ST-PMM(40) can be applied in a single layer with thickness up to 60 mm in vertical locations and up to 40 mm in one layer at overhead locations.

SUBSTRATE PREPARATION

The substrate must be clean, structural sound, free of loose particles, contaminations, grease and any other unwanted contaminants. All existing reinforcement shall be cleaned and all rust should be removed. Over deteriorated reinforcement shall be replaced while retained reinforcement should be primed with anti-rust paint. Edges of the repair area should be saw cut to a minimum depth of 10 mm from the finished concrete surface. Smooth surfaces should be treated to form rough surfaces as proper mechanical keys to receive repair mortar. All honeycomb should be hacked off until sound concrete is exposed.

FEATURES & BENEFITS

- ◆ Premixed in factory
- ◆ Easy for use by just mixing with water
- ◆ High adhesion strength to substrate concrete
- ◆ Good compatibility with old concrete
- ◆ Chloride free
- ◆ Shrinkage compensated thus reducing risk of shrinkage cracks
- ◆ Can be applied by trowel, gloved hand or spray machine

AREAS OF APPLICATION

- ◆ Spalling repair
- ◆ Patch repair for concrete
- ◆ Make good honeycombs
- ◆ Reinstatement of large concrete areas

MIXING & INSTALLATION

1. Prepare bond coat slurry by mixing Score Tech Bond Coat Latex (ST-BCL) with Ordinary Portland Cement (OPC) in a recommended ratio.
2. Prime the exposed reinforcement bars, if any, with the bond coat slurry and allow the bond coat slurry on the reinforcement bars dry out.
3. Moisten the concrete substrate and apply the bond coat slurry when the substrate surface is still damp but without apparent surface water.
4. Apply repair mortar onto the concrete substrate when the bond coat slurry becomes tacky dry.
5. Level up the surface of the repair mortar with trowel and/or spatula and to align with the adjacent surface. Finish the surface of the repair mortar to the required texture by trowel or other suitable tools.
6. Please refer to the method statement provided by Score Tech for details.

CURING

Under normal circumstances, natural curing for ST-PMM(40) is proven to be adequate. When the weather is extremely hot or dry, curing the applied ST-PMM(40) with water mist will be beneficial to achieve its best performance.

PACKAGE

25 kg bag

SHELF LIFE

ST-PMM(40) has a shelf life of 12 months if well kept in dry condition on lifted floor.

HEALTH & SAFETY

Wear NIOSH approved face mask or equivalent personal protective equipment when handling the material. ST-PMM(40) contains cement which may cause an allergic effect or irritation to eyes and skin. When contact with eyes, flush immediately with large quantity of water.

REFERENCE STANDARDS

- ◆ British Standard: BS 6319
- ◆ Hong Kong Standard: ArchSD General Spec.; HKHA MTS Spec. Part D; Product Certificate PCCS-RM Class 40

PRODUCT INFORMATION

Colour	Grey
Maximum Grain Size	2.0 mm
Coat Thickness	10 - 60 mm per layer
Water Demand	~ 4 - 4.5L / 25kg bag
Pot Life	~ 1 hour

PRODUCT PERFORMANCE

Compressive Strength at 28 days	PCCS-RM TM 1 (HKHA MTS Spec. Part D Cl. 2.1.1 & BS 6319-2)	30 - 60 MPa
Tensile Strength at 7 days	PCCS-RM TM 2 (HKHA MTS Spec. Part D Cl. 2.1.3 & BS 6319-7)	≥ 2.0 MPa
Modulus of Elasticity at 28 days	PCCS-RM TM 3 (HKHA MTS Spec. Part D Cl. 2.1.4 & BS 6319-6)	15 - 25 GPa
Bond Strength at 7 days	PCCS-RM TM 4 (HKHA MTS Spec. Part D Cl. 2.1.14 & BS 6319-7)	≥ 2.0 MPa
Cracking in Coutinho Ring Test at 28 days	PCCS-RM TM 5 (HKHA MTS Spec. Part D Cl. 2.1.6 & BS 6319-6)	No Crack
Figg Air Permeability	PCCS-RM TM 6 (HKHA MTS Spec. Part D Cl. 2.1.7)	≥ 200 seconds

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

DISCLAIMER

Note: As the application condition may vary from site to site and may not be identical to the same condition under which the parameters in the brochure are drawn, the information provided on this Technical Data Sheet is for general guidance only. Warranty will not be given to the ultimate performance and application results of this material when the material is not kept, mixed, applied or cured strictly in accordance with the requirements and/or instructions listed out in this brochure or in other supplementary document.

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