MC-Speedcrete 2503 TG

High early strength polymer cementitious mortar for structural applications

BE SURE. BUILD SURE.

PRODUCT PROPERTIES

- High build for vertical and overhead application.
- Excellent and high early bond strength.
- High early strength achieving compressive strength of 25 N/mm² in 3-hours.
- Shrinkage-compensated and chloride free.
- Chloride and sulphate resistant.
- Ideal application in fast track project for quick turnaround and cost saving.

AREAS OF APPLICATION

- As a rapid-setting concrete repair mortar or infill for various building, civil and mechanical installations such as floor toppings, base plate bedding, anchor fixings and honeycomb concrete repairs.

APPLICATION ADVICE

Substrate Preparation: The substrate must be clean and free from all loose particles, dust, oil and any other contaminant which may affect adhesion. The substrate pull-off strength of minimum 1.0 N/mm² is required. To increase mechanical adhesion, the substrate surface aggregates must be exposed by suitable preparation method, e.g. wet grit blasting.

Manual Application: Before application of MC-Speedcrete 2503 TG, pre-wet the substrate to saturated surface dry condition (SSD), with no standing water. For absorbent substrates, it is recommended that multiple prewetting steps be performed.

Mixing: Measure the recommended water and pour approximately 95% of it into a clean container. Gradually add the MC-Speedcrete 2503 TG powder while mixing continuously with a medium speed helical mixer for about 2 minutes until homogeneous consistency is attained. If necessary, add the remaining water as required while mixing continuously. Do not exceed the recommended maximum water dosage. Allow product to stand for 30 seconds after mixing before placing it. Mix only the quantity which can be applied within the workability time of the product.

Application: MC-Speedcrete 2503 TG can be applied by hand trowel or used as a pump grade for spray application with adjustment of water for the required plastic consistency. Applications thickness shall be built in multiple passes where the first layer shall be less than 10 mm to enable sound contact to substrate from trowelling compaction force. Total wet thickness in overhead application shall be kept within 50 mm for each step. For subsequent overhead build thickness in excess of 50mm, a second application step is recommended and the receiving substrate shall be scratched in preparation for the over coat.

Minimum application thickness for horizontal application to receive vertical loading is 8mm. Max wet application thickness is 50mm.

MC-Speedcrete 2503 TG should not be applied at temperatures below +5°C (air and substrate) or above 50°C. Adequate substrate prewetting with water is recommended as all time during hot dry weather.

Please consult MC Technical Team for the exact description of the application fields.

Curing: As with all cementitious materials, care must be taken to ensure that MC-Speedcrete 2503 TG is protected from the rapid drying effects of wind and sun. Use plastic sheets, wet hessian or a suitable curing compound to provide proper curing for at least 24 hours

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TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Aggregate Size max	mm	≤ 2.0	
Wet Mortar Density	kg/dm³	2.1	
Compressive Strength	N/mm²	5.0	2 hours
		25.0	3 hours
(ASTM C109: 2008)		30.0	24 hours
At water dosage 17%		55.0	7 days
		60.0	28 days
Flexural Strength	N/mm²	1.0	2 hours
		3.5	3 hours
(ASTM C348: 2008)		6.0	24 hours
At water dosage 17%		8.0	7 days
		9.0	28 days
Tensile pull off Strength	N/mm²	0.5	3 hours
(ASTM D4541)		1.0	5 hours
At water dosage 17%		1.5	28 days
Consistency	mm		
(ASTM C1437)		180	T= 0
At water dosage 17%		170	T= 20 minutes
Yield	Litres / 20 kg bag	11.0	At water dosage 17% (3.4 litres water)
Final Setting Time	Minutes	45	At 25°C (ASTM 191)
Restrained linear shrinkage Expansion Test	µm / m	< 750	After 28 days
Packaging	20 kg bag and 1000 kg bulk bag		
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs.		
Disposal	In the interest of the environment, please empty all containers completely & in accordance with local regulations.		

Safety instructions:
Please note the safety information and advice given on the packaging labels and safety data sheets.