

MasterCrete 5140

Cementitious polymer modified thin layer fairing mortar

Material Description

MasterCrete 5140 is a concrete grey, ready to use, polymer modified mortar formulated with hydraulic binders and graded quartz sands. It is designed as a high performance fairing coat for application in thin layers up to 3 mm to correct surface imperfections and achieve a uniform fair faced finish on concrete or masonry substrates. The mortar provides excellent adhesion, workability and surface durability, and can be overcoated with protective or decorative systems from the MasterShield range or left exposed.

The formulation contains no chlorides or other soluble salts that may contribute to corrosion of embedded reinforcement or surface blooming. **MasterCrete 5140** is compatible with other mortars in the MasterCrete range for multi layer repair systems. When applied under suitable substrate and environmental conditions, it does not require a separate primer or curing membrane.

Areas of Application

MasterCrete 5140 is especially suitable for levelling uneven surfaces, filling honeycombs and pin holes. It can be used as a topping (render) of up to 3mm thick to face up masonry.

MasterCrete 5140 is ideal for thin resurfacing of damaged concrete surfaces, such as in rain damaged slabs and for use in non-moving crack repairs.

Characteristics and Benefits

- Multi-purpose – allows thin layer patching and feather edging
- Excellent adhesion – forms a permanent bond to prepared concrete substrates
- Easy to apply – can be trowelled on vertical, overhead and horizontal surfaces
- Thixotropic material - quick and easy to apply by trowel vertically and overhead
- Durable - weatherproof and shrinkage compensated
- Fast return to service - high early strength and excellent bonding

Properties

Technical Properties

Characteristics	Test Method	Test results
Bond Strength-MPa	AS 1012.24	> 1.5
Compressive Strength-MPa	AS 1478.2 App. A	1 day: 13 7days: 35 28days:41
Fresh Wet Density -kg/m ³	AS1012.5	1859
Flexural Strength -MPa	ASTM C348	28days: 6.5
Setting time-min	AS1012.18	Initial:395 Final:514
Drying Shrinkage- μ strain	AS1012.13	7d: 740 28d: 1420

All data provided in technical characteristics table verified through testing conducted by NATA-accredited independent laboratories, in full accordance with the specified test methods

General Properties

Supply form	Powder
Water added per bag (20kg)	up to 3.5 litres
Colour	Grey
Storage temperature	5-35°C
Application temperature	not below 7°C

Application

For detailed application methodology, please refer to “**Cementitious Concrete Repair MasterCrete Repair Mortars**” Application Guide.

Surface Preparation

Surfaces to which **MasterCrete 5140** mixtures are to be applied, should be clean, sound and free of dust and loose particles.



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Cement laitance, oil, grease, mould release oil or curing compound must be removed from concrete surfaces by using wire brush, bush hammer, scabber, gritblasting or other means. Spalled or deteriorated concrete should be repaired with a suitable MasterCrete mortar such as **MasterCrete CI 5200** or **5300** prior to the application of **MasterCrete 5140**. All absorbent surfaces to be treated with **MasterCrete 5140** mortars must be thoroughly dampened to saturate all pores. During application, the temperature of the substrate should not be below 7°C.

To avoid too high surface temperatures it is advised to shade areas for the period of application.

Mixing

Pour water approximately 3.5 litres of water into a suitable pail and add **MasterCrete 5140** powder whilst mixing continuously until a homogeneous, lump-free mix is obtained. Adjust water to give a suitable consistency dependent on ambient temperature and relative humidity. In hot and dry climates, slightly higher amounts of water may be necessary, the contrary in cold and humid climates.

Use a low speed stirrer (300-600) with an upward mixing helical mixing paddle to entrap as little air as possible.

Do not mix **MasterCrete 5140** with additional cement, sand or aggregate. Priming is not required.

Method of Use

Apply the well-mixed **MasterCrete 5140** without delay to the prepared damp surface with a spatula or trowel; thin layers may be applied with a brush. A minimum temperature of 7°C is essential. Layers up to a maximum of 3mm per coating can be applied.

Depending on the finish desired, treat the surface of **MasterCrete 5140** after it starts to set with a foam or sponge trowel.

Estimating Data

A 20kg bag of **MasterCrete 5140** mixed with 3 – 3.5 litres of water yields 11 litres (0.011m³), therefore material requirement is 5.5kg/m² @ 3mm thickness.

MasterCrete 5140 (20 kg)				
L	Thickness in mm /m ²	m ³	bags /m ³	m ² /mm thickness
11	11mm	(0.011)	91	11 m ²

Packaging

MasterCrete 5140 is available in 20kg bags.

Storage & Shelf Life

MasterCrete 5140 has a shelf life of 12 months. Store inside out of direct sunlight, clear of the ground on pallets.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

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Disclaimer

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STATEMENT OF RESPONSIBILITY

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