

MasterCrete 5140 (formerly MasterEmaco N 5100)

Cementitious polymer modified thin layer fairing mortar

Material Description

MasterCrete 5140 is a concrete-grey, ready-to-use mortar based on hydraulic binders, high grade quartz sands and modified with synthetic polymers. It contains no chlorides or other salts that might cause corrosion or blooming.

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
- Strong adhesion – bonds permanently to existing concrete
- 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

Compressive strength 28 Days	40 MPa
Flexural strength 28 days	7.0 MPa
E-Modulus 28 days	12.0 GPa
Bond (to substrate)	> 2.5 MPa
Co-efficient of thermal expansion (ASTM C531)	13×10^{-6} m/m/°C
Supply form	Powder
Water added per bag (20kg)	up to 3.5 litres
Colour	Grey
Density (mixed)	2.0 kg/litre
Storage temperature	5-35°C
Application temperature	not below 7°C

Working time at 20°C	50 minutes
At 30°C	25 minutes
AS 4020 water potability	Passed
VOC Content: 7g/L	
Test method: SCAQMD: 304-91	

Application

Surface Preparation

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

Cement laitance, oil, grease, mould release oil or curing compound must be removed from concrete surfaces by using wire brush, bush hammer, scabbler, gritblasting or other means. Spalled or deteriorated concrete should be repaired with a suitable MasterCretemortar 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.

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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				
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.

Disclaimer

MasterCrete-5140-ANZ-V1-1124

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