

MasterCast[®] 151

Liquid admixture for cementitious levelling screeds

DESCRIPTION

MasterCast 151 is a liquid ultra-stable 'micro' air entraining super plasticiser, designed to enhance mechanical properties and reduce the incidence of curling within screeds. **MasterCast 151** is formulated to cope with variations in cement and aggregate sources and quality.

PRIMARY USES

MasterCast 151 is an admixture for use in screed mixes and reduces the mixing water but still enables the screed to be compacted easily.

MasterCast 151 is particularly suited to use in floating & unbonded fine concrete screeds.

MasterCast 151 may be used to reduce cement contents of screed mix designs and thus reduce the overall carbon footprint of a building.

ADVANTAGES

- Excellent flexural and tensile strengths
- Reduced shrinkage and thus susceptibility to curling
- Reduced drying times
- Works well with difficult aggregates
- Increased resistance to damage by freeze / thaw cycles
- Improved pumpability
- Greatly improved plasticity

PACKAGING

MasterCast 151 is supplied in 210 L containers or in bulk.

TYPICAL PROPERTIES*

The physical properties of the screed mix will depend on the ingredients and the mix design used. The performance data below is based on locally available raw materials within the UAE.

Aggregate cement ratio by weight	5.5:1	
Free water cement ratio by weight	0.5	
Aggregate		
Dune Sand	35%	
Was.Gabbro	65% 0-5mm	
MasterCast 151	1 L per 100kg OPC	
Compressive Strength	EN 13892-2	C30
Flexural Strength	EN 13892-2	F6
Wear Resistance (Böhme)	EN 13892-3	A22
Shrinkage & Swelling	EN 13452-2	<0.5mm/m
Drying Times* (<75% RH)	25mm Thick	5 days
60% RH	50mm Thick	7 days

*Time from removal of plastic curing sheet. Drying times will vary depending on curing method, ambient conditions and thickness of screed.

APPLICATION GUIDELINES

MasterCast 151 may be either pre-mixed with the water or added directly into the mix at the same time as the water.

Note: The superior plasticising qualities of MasterCast 151 will result in a significant reduction in water demand of any given mix.

MasterCast 151 is added at the rate of 0.5 - 1 L per 100 kg of cement for normal applications. Please consult your local Master Builders Solutions representative for additions above or below this.

It is recommended to use **MasterFiber 012**, polypropylene monofilament fibres, with **MasterCast 151** screeds.

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MIXING

Please consult the Master Builders Solutions technical representative before using **MasterCast 151** with other admixtures. It can be used for all types of Portland cement, including Sulphate Resisting.

WATCHPOINTS

MasterCast 151 provides protection from frost down to -2°C in the wet mortar. Therefore, **MasterCast 151** should not be used at temperatures below -2°C or if the temperature is expected to drop below -2°C within 24 hours. Normal winter working precautions must be taken.

STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

HEALTH AND SAFETY

MasterCast 151 contains no hazardous substances requiring labelling. For further information see material safety data sheet.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* * Properties listed are based on laboratory controlled tests.

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NOTE

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