



The Chemical Company

MasterEmaco N 5200

Formely: EMACO NANOCRETE R2

Universal, fast setting, polymer modified, fibre reinforced repair and leveling mortar.

DESCRIPTION

MasterEmaco N 5200 is a universal, single component, polymer modified, fast setting, repair, reprofiling and leveling mortar.

MasterEmaco N 5200 is a ready-to-use material that contains special cements, well graded sands, carefully selected polymers and fibres to reduce shrinkage and improve physical and application properties.

When mixed with water, it forms a mortar with an exceptional wide range of applications. MasterEmaco N 5200 can easily be hand or trowel applied in thicknesses from 3 up to 100 mm.

FIELDS OF APPLICATION

MasterEmaco N 5200 is used for the non-structural repair of concrete elements such as:

- balconies edges
- building facades
- parapet walls
- precast panels
- beam edges
- stair nosings

MasterEmaco N 5200 is ideal for general, non-structural patch repairs where fast setting properties with short over-coating times are needed. It exhibits excellent high build properties allowing up to 100 mm thickness in one layer. Can be overcoated after only 4 hours at 20°C.



MasterEmaco N 5200 can be applied as a smoothing or leveling coat at only 3 mm thick on large vertical and overhead areas to achieve a more aesthetic finish e.g. prior to painting.





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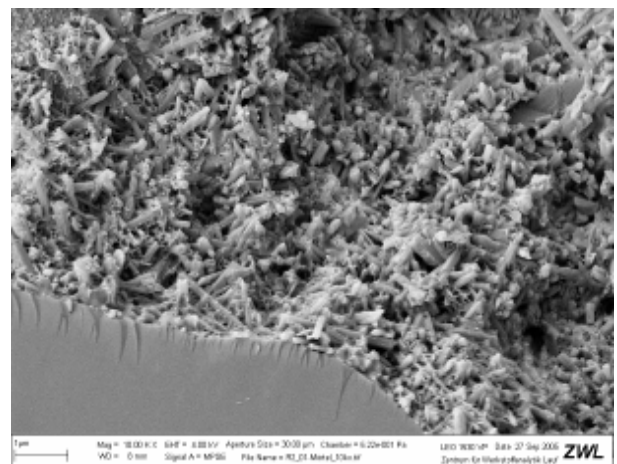
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CARACTERISTICS

MasterEmaco N 5200 meets the acceptance limits specified in the standard UNI EN 1504/3.

CE 1305	
BASF Construction Chemicals Italia spa Via Vicinale delle Corti, 21 Treviso 13 IT0021/01	
EN 1504-3	
Malta PCC per ripristini di strutture in calcestruzzo a base di cemento idraulico, polimero modificata. EN 1504-3 metodi 3.1/3.2/4.4/7.1/7.2	
Resistenza a compressione:	Classe R2
Contenuto di cloruri:	< 0,05%
Adesione al supporto:	> 0,8 MPa
Ritiro:	> 0,8 MPa (adesione dopo la prova)
Compatibilità termica:	
Gelo-disgelo	> 0,8 MPa (adesione dopo i cicli)
Temporali	> 0,8 MPa (adesione dopo i cicli)
Cicli a secco	> 0,8 MPa (adesione dopo i cicli)
Assorbimento capillare:	$\leq \text{Kg/m}^2 \cdot \text{h}^{0,5}$
Reazione al fuoco:	Classe E
Sostanze pericolose:	Conforme 5.4

MasterEmaco N 5200 can be applied inside and outside, on horizontal, vertical and overhead surfaces, in dry and wet environments.



COVERAGE AND PACKAGING

1,5 kg/m² for 1 mm of thickness (1,5 kg/litro).
20 kg bags.



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TECHNICAL DATA

The performances shown below are obtained following UNI EN 13395/1 with a consistency of 170-180 mm, in absence of bleeding

Property	Acceptance limits	Value
Workability	-	30-45 minutes (depending of the temperature)
Setting time: Initial Final	-	45-75 min 60-120 min (depending of the temperature)
Compressive strenght, UNI EN 12190 *	at 28 days ≥ 15 MPa	1 day > 10 MPa 7 days > 20 MPa 28 days > 30 MPa
Adhesion to concrete, UNI EN 1542 on supports MC 0,40 type (water/cement ratio = 0,40) according to UNI EN 1766.	$\geq 0,8$ MPa	$\geq 2,8$ MPa
Freeze and thaw resistance with deicing salts measured as adhesion UNI EN 1542 after the cycles UNI EN 13687/1 on support type MC 0,40.	$\geq 0,8$ MPa after 50 cycles	$\geq 0,8$ MPa after 50 cycles
Thunder-Shower resistance measured adhesion UNI EN 1542 after the cycles UNI EN 13687/2 on support type MC 0,40.	$\geq 0,8$ MPa after 30 cycles	$\geq 0,8$ MPa after 50 cycles
Freeze and thaw resistance without deicing salts measured as adhesion UNI EN 1542 after the cycles UNI EN 13687/4 on support type MC 0,40	$\geq 0,8$ MPa after 30 cycles	$\geq 0,8$ MPa after 50 cycles
Waterproof measured as capillary absorption factor, UNI EN 13057	$\leq 0,5 \text{ kg}\cdot\text{m}^{-2}\cdot\text{h}^{-0,5}$	$\leq 0,5 \text{ kg}\cdot\text{m}^{-2}\cdot\text{h}^{-0,5}$
Crack resistance O Ring test Triangular duct (DIN type)	----	No cracks after 180 days No cracks after 180 days

APPLICATION SHEET

STORAGE

Store in cool and dry warehouse conditions. Shelf life in these conditions is 12 months in unopened original sacks.

SURFACE PREPARATION

Concrete must be fully cured, clean and sound to ensure good adhesion. All loose traces of concrete or mortar, dust, grease, oil, etc. must be removed.

Damaged or contaminated concrete should be removed to obtain a keyed surface. Non-impact/vibrating cleaning methods, e.g. grit or high water pressure blasting are recommended. Aggregate should be clearly visible on the surface of the concrete after preparation.

Cut the edges of the repair vertically to a minimum depth of 3 mm.

REINFORCING STEEL

Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1/ISO 12944-4. For extra protection, or when the steel is left exposed before repair work is completed, apply MasterEmaco P 5000 AP active protection cement based primer (see technical data sheet).

PRIMING

The prepared substrate should be pre-soaked preferably for 24 hours, but at least 2 hours before applying MasterEmaco N 5200. The surface must be mat-dump, but without standing water.

For improved build thicknesses or when working on large areas, apply bond or contact layer of the MasterEmaco N 5200 mortar.

Always apply MasterEmaco N 5200 mortar wet-in-wet onto the bond or contact layer.



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MIXING

It is strongly recommended that only full sacks are mixed. Damaged or opened sacks should not be used.

Mix MasterEmaco N 5200 in suitable paddle attached to a powerful, slow speed electric drill or in a forced action pan mixer for 3 minutes until a lump-free, plastic consistency is achieved. Only use drinking quality water.

Mixing water needed: 3,5 to 4,0 liters per 20 kg sack depending upon consistency required.

Allow the mortar to rest 2-3 minutes and then remix briefly, adjusting the consistency when required, without exceeding the maximum water demand.

MORTAR APPLICATION

The minimum temperatures must be maintained during application and for at least 12 hours thereafter for optimum curing of the product.

The surface must be mat-damp, but without standing water.

MasterEmaco N 5200 can be hand or trowel applied. Apply mixed product directly to the prepared damp substrate, or wet in wet onto the primed surface.

A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve the wet adhesion and cohesion of the mortar.

Apply to the desired layer thickness of 3 to max. 100 mm. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to shiften, typically after approximately 45-60 minutes at 60°C.

CLEANING OF TOOLS

When still wet clean with water. Once dry/cured the material can only be removed mechanically.





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From 16/12/1992 BASF Construction Chemicals Italia Spa operates under the Quality System in compliance with European Standard UNI-EN ISO 9001. The environmental management system of BASF Construction Chemicals Italia Spa is certified accordingly to UNI EN ISO 14001 and the System of Safety Management is certified accordingly to OHSAS 18001. Environment sustainability: Partner Green Building Council since 2009.

BASF Construction Chemicals Italia Spa

Via Vicinale delle Corti, 21 – 31100 Treviso – Italy

T +39 0422 304251 F +39 0422 421802

[http:// www.master-builders-solutions.basf.it](http://www.master-builders-solutions.basf.it)

e-mail: infomac@basf.com

For further information, please consult your local BASF Construction Chemicals Italia Spa representative.

The technical advice on how to use our products, either written or verbally given, are based on the present state of our best scientific and practical knowledge, and no guarantee and/or implicit or explicit responsibility are assumed on final results of works executed by the use of our products.

The owner, his representative, or the contractor is responsible for checking the suitability of our products as to the intended use and aims.

Supersedes all prior issues on this product.

Febbraio 2014

