



MALTA RAPIDA

Self-levelling epoxy mortar with rapid hardening

CE marking:

- EN 13813 - Designation: SR-B2.0-AR0.5-IR4

Certifications:

- UNI 11021 - HACCP



TECHNICAL SPECIFICATIONS



FIELD OF APPLICATION



APPLICATIONS



Description

MALTA RAPIDA is a three-component epoxy product made up of:

- Component A: a mixture of liquid epoxy pre-polymers.
- Component B: co-polymerisation amine.
- Component C: special additives and fillers.

Mixing the three components together yields a coloured self-levelling fluid mortar that is highly suitable for creating resin coatings of industrial floors with direct casting on the concrete.

MALTA RAPIDA is available in two versions:

► MALTA RAPIDA 12

Fluid version with 1 part by weight of Liquid Part for every 2 parts by weight of Powder Part.

► MALTA RAPIDA 13

Version loaded with 1 part by weight of Liquid Part for every 3 parts by weight of Powder Part.

CE marking

► EN 13813

MALTA RAPIDA complies with the principles envisaged in the EN 13813 standard ("Screed material and floor screeds - Screed materials: Properties and requirements") with the following designation:

→ SR-B2.0-AR0.5-IR4

- Synthetic resin screed (SR)
- Bond strength: > 2.0 MPa (B2.0)
- BCA wear resistance:
- Impact resistance: 4 Nm (IR4).

Certifications

MALTA RAPIDA, applied and cured according to the indications shown in the "Technical data" table, it can be used as a coating for environments containing foodstuffs (Test report no. 288/L, in accordance with the UNI 11021 standard, issued by GFC CHIMICA).

- MALTA RAPIDA is suitable for all surfaces that must be resistant to washing and to mould build-up.
- MALTA RAPIDA is suitable for surfaces that must be disinfected (type D detergent as defined in the UNI 11021 standard).
- MALTA RAPIDA is suitable for being washed with an alkaline degreaser (type B detergent as defined in the UNI 11021 standard).
- MALTA RAPIDA is suitable for cold rooms.

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Colour

MALTA RAPIDA is supplied in the NEUTRA (colourless) and COLORATA versions in the colours indicated in the CATALOGUE-PRICE LIST.

Field of application

▶ MALTA RAPIDA 12

- Resin coatings for industrial floors with the “skim coating and quartz sprinkling” technique up to 2 mm thick with non-slip surface

→ for industrial sectors in which processing occurs in dry environments.

→ for zones subject to intense forklift truck traffic.

▶ MALTA RAPIDA 13

- Resin coatings for industrial floors with the “self-levelling cast” technique up to 2.5 mm thick.

- Resin coatings for industrial floors with the “self-levelling cast and quartz sprinkling” technique up to 3.5 mm thick with non-slip surface for various industrial sectors, particularly those in which works involving the spreading of water on the ground are carried out.

Advantages

- The main characteristic of MALTA RAPIDA is its ability to spread uniformly on surfaces with irregular features, such as shot-peened concrete or tiles with large grout lines.

- MALTA RAPIDA possesses excellent adhesion to the support and extremely high compressive strength.

- MALTA RAPIDA is designed for hardening in roughly 5 hours after application (at T = +23°C and 50% R.H.), meaning it can be applied even twice a day to accelerate the completion of resin floors.

General preparation of the laying support

▶ Industrial quartz concrete

- Apply after adequate seasoning with maximum 3% humidity.

- Before proceeding, verify the maximum humidity of the surface using the carbide method (UNI 10329 or ASTM D4944).

- Roughen the surface with shot peening or grinding with diamond wheels.

- If required, eliminate joints and cracks via “stitching” with fixed steel bars inserted in the cast.

▶ Sand and cement screeds

- Apply only on screeds with compressive strength above 20 MPa.

- Apply after adequate seasoning with maximum 3% humidity.

- Before proceeding, verify the maximum humidity of the surface using the carbide method (UNI 10329 or ASTM D4944).

- Sand the surface with a single-disc floor scrubber equipped with 60-grit DOUBLE DISC.

- If required, eliminate joints and cracks via “stitching” with fixed steel bars inserted in the cast.

▶ Stoneware and clinker tiles

- Roughen the surface with a diamond cup wheel.

- Skim coat any wide and deep gaps with GROVE PRIMER and GROVE MASSETTO.

Specific preparation of the laying support

▶ Supports with humidity between 3% and 6%

- Apply one coat of SOLID on the roughened surface.

▶ Supports with humidity above 6%

- Apply one coat of Q-PRIMER followed by a skim coat with Q-RASANTE sprinkled with 0.3–0.9 NATURAL QUARTZ.

▶ Stitching of cracks and joints

- Make cuts in the support perpendicular to the cracks and insert the steel bars secured with PLAST EPO.

▶ Concrete supports treated with coloured iron oxide

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- Shot-peen the surface deeply or grind it with a diamond grinding wheel down to the non-coloured part of the concrete.
- ▶ Concrete supports with holes
- Repair any holes or depressions exceeding 3 mm with MALTAFIX.
- ▶ Expansion joints
- Fill and coat with the MALTA RAPIDA cycle for floors and, once it hardens, cut and seal bare using BETONSEAL PU 200 (see Technical Sheet).

Preparing the product

▶ MALTA RAPIDA 12

- Shake the tank of comp. B, open and mix the bucket with comp. A and open the bags of comp. C.
- Add comp. B to comp. A then mix
- Add comp. C in the specified proportions: 2 parts by weight of comp. C for every 1 part by weight of A+B.
- Mix the 3 components of the product until obtaining a homogeneous mixture.

▶ MALTA RAPIDA 13

- Shake the tank of comp. B, open and mix the bucket with comp. A and open the bags of comp. C.
- Add comp. B to comp. A then mix using a professional mixer.
- Add comp. C in the specified proportions: 3 parts by weight of comp. C for every 1 part by weight of A+B.
- Mix the 3 components of the product until obtaining a homogeneous mixture.

Application of the product

▶ MALTA RAPIDA 12

- Pour MALTA RAPIDA on the surface previously treated with NORPHEN FONDO SL using a roller.
- Apply MALTA RAPIDA using a SMOOTH STEEL TROWEL (model NR 842-203).
- Sprinkle wet-on-wet with 0.3–0.9 mm NATURAL QUARTZ until saturated.
- Once MALTA RAPIDA hardens, remove any excess QUARTZ.
- Sand the surface with a single-disc floor scrubber equipped with 24- or 36-grit DOUBLE DISC.
- Vacuum the surface thoroughly.
- The surface is thus ready for the successive application of the NORPHEN 200 top coat (or another type of product specified in the project) with the NYLON trowel model L400.

▶ MALTA RAPIDA 13, for creating a smooth self-levelling surface

- Pour MALTA RAPIDA on the surface previously treated with NORPHEN FONDO SL using a roller.
- Apply MALTA RAPIDA using a STEEL TROWEL with SAW TOOTH profile (model DEN 814/D-08).
- Pass over the surface using a SPIKED ROLLER with STEEL wires (model NR3625LB, width 25 cm or NR3650LB, width 50 cm).

▶ MALTA RAPIDA 13, for creating a non-slip surface

- Pour MALTA RAPIDA on the surface previously treated with NORPHEN FONDO SL using a roller.
- Apply MALTA RAPIDA using a STEEL TROWEL with SAW TOOTH profile (model DEN 814/D-08).
- Pass over the surface using a SPIKED ROLLER with STEEL wires (model NR3625LB, width 25 cm or NR3650LB, width 50 cm).
- Wet on wet, sprinkle with 0.3–0.9 mm NATURAL QUARTZ until saturated.
- Once MALTA RAPIDA hardens, remove any excess QUARTZ.
- Sand the surface with a single-disc floor scrubber equipped with 24- or 36-grit DOUBLE DISC.
- Vacuum the surface thoroughly.
- The surface is thus ready for the successive application of the NORPHEN 200 top coat (or another type of product specified in the project) with the NYLON trowel model L400.

▶ Choice of the SUMMER/WINTER version

The choice of the correct version of the product to be used is made on the basis of the work temperature (see Table 1).

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Intervallo di temperatura [°C]	Versione di MALTA RAPIDA
da +0 a +15	INVERNALE
oltre +15	ESTIVA

Tab. 1 – choice of the MALTA RAPIDA version on the basis of the work temperature.

► Hardening time

The hardening time of MALTA RAPIDA depends both on the version (SUMMER or WINTER) and on the application and curing temperature (see Table 2).

Versione del prodotto	Temperatura [°C]	Tempo [ore]
INVERNALE	+1	24
INVERNALE	+12	5
ESTIVA	+20	5

Tab. 2 – curing times of MALTA RAPIDA on the basis of the work temperature.

Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
MALTA RAPIDA 12	2,0	2,0	kg/m ²	-
MALTA RAPIDA 13	4,0	4,0	kg/m ²	-

Cleaning of tools

- Wet and dry product: clean with ACETONE, SOLVENT FOR NORPHEN, thinner for nitro or alcohol.
- Hardened product: remove mechanically, soak for at least 24 hours in ACETONE or nitro thinner, or use paint strippers (FLUID STRIPPER or GEL STRIPPER).

Useful application tips

- Do not apply on rubber floors.
- Do not apply on parquet floors.
- The product must be mixed thoroughly with suitable mechanical tools, excluding any manual system.
- Pay special attention to the screed's humidity content. Humidity exceeding the allowed values may cause blisters to form in the product in some points.
- Store the product in a cool location during summer and in a warm one during winter. This allows for preserving good fluidity at low temperatures and limiting the product's reactivity to high temperatures.
- Mix components A, B and C in the precise ratios supplied.
- If the package is used partially, it is indispensable to weigh the single components by reading the exact "MIXING RATIO" (by weight) on the package.
- Read the Safety Sheet carefully before using the product.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Density at 23°C, MALTA RAPIDA 12 (A+B+C), EN ISO 2811-1	kg/L	1,84 ± 0,05
Density at 23°C, MALTA RAPIDA 13 (A+B+C), EN ISO 2811-1	kg/L	2,24 ± 0,05
► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Mix ratio by weight (A:B:C), MALTA RAPIDA 12	-	2:1:6
Mix ratio by weight (A:B:C), MALTA RAPIDA 13	-	2:1:9
Pot-life (thermometric), SUMMER version, A+B, from +15°C to +40°C, EN ISO 9514	min	7,0 ± 0,2
Pot-life (thermometric), SUMMER version, A+B, from +23°C to +40°C, EN ISO 9514	min	5,0 ± 0,2

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► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Pot-life (thermometric), WINTER version, A+B, from +1°C to +40°C, EN ISO 9514	min	20,0 ± 0,5
Pot-life (thermometric), WINTER version, A+B, from +15°C to +40°C, EN ISO 9514	min	5,0 ± 0,2
Minimum commissioning time (at 23°C, 50% R.H.)	days	7
Application temperature, SUMMER version	°C	From +15 to +30
Application temperature, WINTER version	°C	From 0 to +15
Adhesion on concrete, EN 1542	MPa	3.5 ± 0.5 (cohesive fracture of the concrete)
Resistance to UV and condensate cycles, cycle A (8 hours UVA-340 + 4 hours condensate 50°C), for a total of 168 hours, measurement of yellowing, ΔE, ASTM D 4329	-	35 ± 2
Resistance to UV and condensate cycles, cycle A (8 hours UVA-340 + 4 hours condensate 50°C), for a total of 168 hours, measurement of opacification, ΔGloss, ASTM D 4329	-	80 ± 5
Flexural strength (at 7 days), EN 1015-11	MPa	35 ± 1
Compressive strength (at 7 days), EN 1015-11	MPa	80 ± 2
Shore D hardness, A+B, curing for 24 hours at +25°C/70% R.H., DIN 53505	-	(65 ± 2)°
Wear resistance – Taber Method, CS17 grinding wheel, 1,000 revolutions, 1 kg load, EN ISO 5470-1	mg	50 ± 5

► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Bond strength, EN 13892-8	MPa	4,6 ± 0,4
BCA wear resistance, depth of wear, EN 13892-4	µm	< 50
Impact resistance (class), measured on specimens of concrete coated with MC (0.40) as per EN 1766, EN ISO 6272-1	N·m	4

Storage of the product

- 24 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +30°C.

Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
MALTA RAPIDA 12 NEUTRA ESTIVA	kit (A+B+C) da 15 kg	P*	21 kit	A = 3,33 kg (fustino met.) B = 1,67 kg (tanica) C = 5,0 kg (2 sacchetti)
MALTA RAPIDA 12 GRIGIO ESTIVA (1)	kit (A+B+C) da 15 kg	P*	21 kit	A = 3,33 kg (fustino met.) B = 1,67 kg (tanica) C = 5,0 kg (2 sacchetti)
MALTA RAPIDA 12 NEUTRA INVERNALE	kit (A+B+C) da 15 kg	P*	21 kit	A = 3,33 kg (fustino met.) B = 1,67 kg (tanica) C = 5,0 kg (2 sacchetti)
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MALTA RAPIDA 13 NEUTRA ESTIVA	kit (A+B+C) da 20 kg	P*	21 kit	A = 3,33 kg (fustino met.) B = 1,67 kg (tanica) C = 7,5 kg (2 sacchetti)
MALTA RAPIDA 13 GRIGIO ESTIVA (1)	kit (A+B+C) da 20 kg	P*	21 kit	A = 3,33 kg (fustino met.) B = 1,67 kg (tanica) C = 7,5 kg (2 sacchetti)
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Legenda ADR:

P* = merce PERICOLOSA imballata in quantità limitata (confezionata come da Cap. 3.4 ADR)

(1): The coloured version is available in 5 colours: GRIGIO (similar to RAL 7040), TRAFFIC GREY B (similar to RAL 7043), GREY WHITE (similar to RAL 9002), CREAM (similar to RAL 1013) and ROSSO OSSIDO. Given the nature of the product, for a given colour, slight colour differences between batches are to be regarded as normal.

LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website www.nordresine.com contains the latest revision of this datasheet.

EDITION

Issue date: 22.12.2003

Revision: 26.02.2018