STONE HC

A transparent bi-component epoxy binder with low yellowing for resin and coloured chipping mixes.

TECHNICAL SPECIFICATIONS

FIELD OF APPLICATION

APPLICATIONS

Description

STONE HC is a transparent epoxy binder with low yellowing, made up of:
• component A: a mixture of liquid epoxy pre-polymers and special additives;
• component B: co-polymerisation amine.
The product is able to permanently bind with natural stone surfaces of any type, colour and grain-size distribution (up to maximum 30 mm) to create coatings on floors, even outdoors.

Field of application

STONE HC is the ideal binder for natural floors made of resin and tumbled marble chippings, even light-coloured, which must be non-slip and resistant to weathering and freeze-thaw cycles such as:
• Pavements, walkways and pedestrian areas.
• Prefabricated draining slabs for outdoor paving.

STONE HC is not suitable for treating areas subject to vehicle traffic and to create coatings with white chippings. For this latter application, the appropriate product is STONE LY.

General preparation of the laying support

The support must be carefully examined to ensure that it is a suitable and structurally sound base.
• Il calcestruzzo industriale al quarzo può essere rivestito dopo pallinatura, levigatura con mola diamantata o lavaggio acido, con tasso di umidità massimo del 4% (metodo al carburo , ASTM 4944 o UNI 10329).
• Sand and cement screeds must be properly cured (at least 28 days) with a residual humidity of less than 4%; they must also have a compressive strength of at least 25 MPa: if not, their resistance must be augmented by means of deep impregnation with FONDO SL diluted at 40% with SOLVENT FOR NORPHEN, calculating a minimum consumption of roughly 250 g/m2 of FONDO SL (A+B) pure.
• SC 1 ready-made screeds can be covered after 48 hours (at 20°C and with 50% R.H.).
• Type SC 1-F fibre-reinforced screeds can be covered after 48 hours (at 20°C and with 50% R.H.).
• Screeds made with SC 1-BASE type binder and miscellaneous sand may be covered after 3–4 days (at 20°C and with 50% R.H.), once their residual humidity has been measured. If necessary, FAST FLUID 300 screeds can be added to the mix to halve the waiting time for covering the surface.
• Tiled surfaces must be roughened with a diamond cup wheel.

Specific preparation of the laying support

► With the presence of humidity in the support below 4%
• Before applying the coating, treat the substrate with one coat of NORPHEN FONDO SL, applied with a trowel or roller, sprinkled lightly with 0.3-0.9 mm quartz sand, for a consumption of around 0.40 kg/m² of (A+B).

► With the presence of humidity in the support between 4% and 6%
• Before coating the surface, treat the substrate with one coat, applied with a roller, of SW SOLID diluted with 30% by weight in water and lightly sprinkled with 0.3–0.9 NATURAL QUARTZ sand, for a consumption of roughly 0.25 kg/m² of (A+B).
• The following day, remove any loose quartz and proceed.

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► Dividing joints
Pay special attention to the treatment of the joints; below are a few useful tips:
• Quartz-based industrial floors up to 15 cm thick with a single reinforcing mesh and seasoned for less than 1 year: cut and seal bare.
• Floors like those mentioned above more than 15 cm thick and with two reinforcement meshes, or floors with a single mesh that are seasoned for over 1 year: fill the joint and create an elastomeric resin strip with PU BASE reinforced with a strip of FIBREGLASS MESH 160.

Preparing the product
Use a vertical bucket concrete mixer to prepare the mix of chippings and resin.
Prepare the required amount of (A+B) resin in a clean service container, following the recommended chipping/binder ratio indicated in the “Consumption” table, as follows:
• Prepare in a concrete mixer the exact quantity of chippings to be mixed.
• Dose the STONE HC comp. B into comp. A in the specified quantity.
• Homogenise the mixture using a low-speed professional mixer for roughly 60 seconds.
• Scrape the walls of the bucket with a clean trowel to facilitate the homogeneity of the mix.
• Repeat the mixing for 15 seconds.
• Wait 90 seconds to trigger the reaction between the two components.
• Perform the final mix for 15 seconds.
• At the end, activate mixing in the concrete mixer and pour the STONE HC mix to create the paste within 25 minutes (at +23°C) from its preparation.
• Continue mixing until all the chippings are uniformly wet by the resin.

Application of the product
► Casting of the chipping coating
• Take the prepared product to the work area.
• Pour the product onto the surface spreading it with a rake and adjust its thickness with a straightedge.
• Smooth and compact the screed using the smoothing trowel (with round edges).
• The following day, protect the coating obtained with one coat of NORDPUR ESTERNI TRASPARENTE applied by spraying or with a short-bristle roller.

► Thickness of the coating
For an even finished surface, we recommend calibrating the thickness of the covering in relation to the chip size, according to the following rule:
→ minimum thickness of the coating = 2 times the maximum grain size of the chippings.
We also recommend using profiles (secured to the substrate before the screed is cast) to facilitate the creation of an even and calibrated layer and the cast’s confinement.

Consumi
► For a 15 mm thick floor made with tumbled chippings with (6–8) mm grain size

products	minimum consumption	maximum consumption	UoM	dilution
Primer for DRY substrate → FONDO SL	0,40	0,45	kg/m²	-
Primer form DAMP substrate → SW SOLID	0,25	0,30	kg/m²	(30% of water on A+B)
Tumbled chippings	22	23	kg/m²	-
STONE HC	1,40	1,55	kg/m²	-
NORDPUR ESTERNI TRASPARENTE	0,06	0,07	kg/m²	-

► For a 15 mm thick floor made with tumbled chippings with (2–4) mm grain size

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products	minimum consumption	maximum consumption	UoM	dilution
Primer for DRY substrate → FONDO SL	0,40	0,45	kg/m²	-
Primer form DAMP substrate → SW SOLID	0,25	0,30	kg/m²	-
Tumbled chippings	18	19	kg/m²	-
STONE HC	1,20	1,30	kg/m²	
NORDPUR ESTERNI TRASPARENTE	0,06	0,07	kg/m²	-

Cleaning of tools

• Wet product: acetone or nitro thinner before the product hardens. The hardened product must be removed mechanically.
• Hardened product: remove mechanically, use special paint strippers (GEL STRIPPER or FLUID STRIPPER) or a thermal gun.

Useful application tips

Do not apply the chipping coatings on:
• Solid wood.
• Linoleum and rubber.
• Surfaces subject to considerable expansion problems along the expansion joints.
• Read the Safety Sheet carefully before using the product.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Density at 23°C (A+B mix), EN ISO 2811-1	kg/L	1,03 ± 0,03
Colour (Component A)	-	Transparent liquid
Colour (Component B)		

► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Mix ratio by weight (A:B)	-	2 : 1
Mix ratio by weight of the chippings: (A+B)	-	45 : 3
Pot-life (thermometric) on (A+B), from +20°C to +40°C, EN ISO 9514	min	30 ± 3
Shore D Hardness on (A+B), curing for 7 days at +23°C/50% R.H., DIN 53505	-	(74 ± 2)°

Storage of the product

• 24 months in the original packaging, in a dry and covered location, at a temperature between +10°C and +30°C; protect against frost.

Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	kit (A+B) da 3 kg	P*	-	A = 2 kg (fustino met.) B = 1 kg (tanica)
- (1)	(A+B) da 12 kg	YES	-	A = 8 kg (fustino met.) B = 4 kg (tanica)

Legenda ADR:
P* = merce PERICOLOSA imballata in quantità limitata (confezionata come da Cap. 3.4 ADR)
SI' = merce PERICOLOSA
(1): Fustino con chiusura a cravatta.

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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.

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