





-  RESIN FLOORS
-  PAVIMENTI IN RESINA
-  SOLS EN RÉSINE
-  POSADZKI ŻYWIJCZNE - DEKORACYJNE I PRZEMYSŁOWE



FARMACRETE

Self-levelling clear epoxy resin for ceramized floors

MARCATURA CE PER EN 13813 –SR-B2.0-AR0.5-IR10

Description

FARMACRETE is a three component product:

- component A: a mix of liquid epoxy prepolymers;
- component B: copolymerization amine;
- component C: a mix of specially selected ceramized quartz sands, calibrated and mixed in colours to obtain the intended result.

FARMACRETE owes its name to the great success met in the pharmaceutical and parapharmaceutical industry, since it combines extremely high mechanical resistance with a particularly smooth surface (quite suitable for disinfection procedures), together with extremely good looks. Adheres well to the substrate and is highly compression resistant.

FARMACRETE is rated class 1 for resistance to mould pursuant to UNI EN 15457:2008.

FARMACRETE is conforming to EN 13813 as a synthetic resin screed, in class SR-B2,0-AR0,5-IR10

Range of use

FARMACRETE can be used as a floor base and finish coating in the following sectors:

- pharmaceutical and parapharmaceutical industry, doctor's surgeries and various industrial environments requiring a highly resistant, beautiful floor for interiors in dry process conditions;
- showrooms and exhibitions;
- offices.

Application

Preparing the underlying surface

Prepare the surface according to state-of-the-art resin floor requirements: carefully examine the subfloor to make sure it makes up a suitable and structurally sound base.

- Industrial quartz concrete can be coated over after shot blasting, followed by smoothing with diamond wheel or acid washing, provided its humidity content is max 3%.
- Sand and concrete footings must be left to set for a suitable length of time (at least 28 days); max residual humidity must be lower than 3% (carbide measurement); they must also have a minimum 250÷300kg/cm² compression resistance, otherwise you must increase it by deep impregnation with NORPHEN SW SOLID (diluted according to technical card instructions); you will need between 50 and 100 g pure product at least for each centimetre thickness of the surface to be consolidated.
- SC 1 and SC 1-F ready footings can be coated over after 8 days (20°C and 50% residual humidity).
- SC 1-R quick ready footings can be coated over after 48 hours (20°C and 50% RH).
- Footings realized with a SC 1-BASE-like binder and various sand types can be coated over after 12÷15 days (20°C and 50% RH), after checking subfloor humidity content.
- Tiled surfaces must be made rough using a diamond cup wheel.
- Large wood panelled surfaces can be coated over after treating the gaps with NORPHEN PU reinforced with a 160g/m² GLASS MESH strip (about 5÷7 cm wide), followed by fine dusting with 0.1÷0.5 mm. quartz sand.

Special underlayments

1) Surface humidity content lower than 3%:

- before you proceed with FARMACRETE, make sure the underlayment is cohesive enough and does not show holes or depressions more than 3 mm deep;
- spread a layer of NORPHEN FONDO SL loaded with 0.1-0.3 quartz using a spatula, and dust lightly with 0.3÷0.9 mm quartz sands (you will need approx. 2.0 to 2.5 kg/m²).
- the next day, remove all loose sand, treat with sandpaper and extract all residue with a vacuum cleaner;
- now apply FARMACRETE.

2) Surface humidity content between 3 and 4.5 %:

- apply a coat of NORPHEN SW SOLID diluted 1:2 in water;



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- the day after, spread a layer of NORPHEN FONDO SL and proceed as for case 1).
- 3) *Surface humidity content higher than 4.5 %:*
 - apply a coat of NORPHEN SW SOLID diluted 1:2 in water;
 - smooth over with NORPHEN W3 (amount needed: c.1.5 kg/m²);
 - wait 48 hours, then proceed with NORPHEN FONDO SL as in case 1).
- 4) *Industrial quartz concrete:*
 - shot blasting is the best way to prepare this type of surface before applying FARMACRETE;
 - on the now rougher surface you can spread a layer of NORPHEN FONDO SL followed by quartz dusting; proceed as for case 1).
- 5) *Section gaps*
Pay special attention to section gaps; this the procedure to follow:
 - a. industrial quartz floors up to 15 cm thick, less than 1 year old, with only one reinforcing mesh:
 - cut and seal to finish;
 - b. floors as above, more than 18 cm thick and with two reinforcing meshes or else floors with only one reinforcing mesh (more than 1 year old):
 - fill up the gap and make a band of NORPHEN PU elastomeric resin reinforced with a 160 g/m² GLASS MESH strip.

Preparing the mix:

- pour into a container first FARMACRETE BASE component A, then component B and mix to obtain a homogenous mixture;
- add 50% in weight (of A+B) of 0.1÷0.3 mm quartz sand and approx. 70% (of A+B) of FARMACRETE component C;
- mix carefully.

Application:

- bring the ready prepared mix to the working area and pour onto the surface, spreading with a 48 cm smooth steel spatula;
- proceed to cover 15-20 m² surface area;
- dust over lightly, while still wet, with FARMACRETE component C;
- carry on to cover the whole surface area to be treated;
- the day after, take away any sand not adhering to the surface, smooth over and vacuum all dust;
- prepare FARMACRETE by mixing component A and component B, without adding any quartz;
- apply a coat of FARMACRETE with a proper nylon spatula.

Cleaning the tools

Use water before the product has hardened. Hardened product must be removed mechanically.

Working times





FARMACRETE average reaction times allow the operator to do a first rate job: you can expect it to be hardened up and ready to take the next product layer in 12 hours (at 20 °C).

Yield

For a 3 mm thick coating, you will need:

- approx. 1.6 kg/m² of FARMACRETE (A+B)
- approx. 4.5 kg/m² of FARMACRETE comp. C.



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Colours

The colour of FARMACRETE is primarily due to the mix of ceramized quartz sand: the standard colours are available (see "the colours of BRIGHT STONE") for small areas, while custom colours are available for large areas.





Warnings and special instructions

- Do not apply on:
 - parquet;
 - linoleum;
 - rubber;
 - any surface likely to expand considerably on the joining gaps.
- Make sure the working room temperature is not lower than +15°C.
- Remember that you must keep working on the product; a team of people should be perfectly timed to get the next mix ready just as they finish with the previous one, with no gaps in between.
- According to the room temperature, the product must be kept cool (in summer) or warm (in winter) because in cold weather resins tend to crystallize and thus become less fluid, while in hot weather the mix takes longer to set.
- Read carefully the safety card.

Technical features

PRODUCT APPLICATION DATA (at 23 °C and 50% relative humidity)		
Mass per volume (A+B+C), UNI 8310	g/cm ³	1.65 ± 0.05
Surface drying time , UNI 8904	hours	8
Lowest application temperature	°C	+15°C
Highest application temperature	°C	+35°C
A:B Ratio		2 : 1
FINAL PERFORMANCE (7 days at +23°C and 50% RH)		
Adhesion to concrete ASTM D 4541-95	MPa	> 3.5
Permeability to water vapour, DIN 52615	μ	~ 13500
Slip resistance class, DIN 51130-2009	---	R9
Average total acceptance angle (α _{ges}), DIN 51130-2009	°	9.0 ± 0.3
Slip classification group, DIN 51097	---	A
Average angle of inclination (α), DIN 51097	°	15.6 ± 1.4
Compression resistance	MPa	> 72
Mould resistance, UNI EN 15457	Intensity of fungal growth (scale: 0 ÷ 4)	1 (fungal growth on sample surface: < 10%)
Permeability to water vapour EN ISO 7783-2 (on porous support)	m	S _D = 1.21 ± 0.26 (thickness = 0.2 mm) class I (S _D < 5m)
Capillary absorption and permeability to water - EN 1062-3	Kg/(m ² h ^{0.5})	0.005 ± 0.001
Resistance to thermal shock (adhesion against direct traction after 1 hour at 160°C) EN 13687-5	MPa	≥ 5



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FINAL PERFORMANCE PER EN 13813 (SYNTHETIC RESIN SCREEDS)		
Resistance to wear BCA, EN 13892-4	class	AR0,5 (approx 16 micron)
Adhesion force, EN 13892-8	MPa	3.6 ± 0.5
Impact resistance, EN ISO 6272-1		IR10
Reaction to fire	class	B _{f1} s1

Note: test data refer to quoted regulations

Chemical resistance, UNI EN ISO 2812-1 (method 2)

30% hydrochloric acid in water	4
10% sulphuric acid in water	3
20% phosphoric acid in water	3
30% acetic acid in water	1
15% ammonia in water	5
30% caustic soda (sodium hydroxide) in water	2
3.5% hydrogen peroxide (12 volumes)	4
Mix of 1% acetic acid and 0.5% hydrogen peroxide in water	5
Denatured ethanol	2
Industrial acetone	3

(1 = product disintegration, 5 = no alteration; for the full range see [appendix A](#))

Packing and storage

Packages	comp. A: 13.33 kg comp. B: 6.67 kg comp. C: 25 kg
Storage	comp. A and B: 24 months in their original packaging, in a dry, indoors space, +5°C to +35°C. comp. C: no expiry. Keep in a dry, indoors space.

Legal notice

Tips on how to use our products match the current state of our knowledge and do not imply any assumption of responsibility or/and liability for the final result of works. Therefore, customers are not exempt from the responsibility to verify the suitability of products for use and final aims through preliminary tests. The website www.nordresine.com contains the latest revision of this datasheet.

Edition

13.07.2015

