

RINOLCRETE PU-C560

SELF-LEVELLING POLYURETHANE-CEMENT MORTAR COATING

RINOL

1 General data

Product description and application

RINOLCRETE PU-C560 is a coloured, ready-to-use 4-component, self levelling and scratch coat mortar coating made of high-quality polyurethane resin and mineral components. The product shows very good chemical resistance to a wide range of detergents, disinfectants, acids, solvents and other chemicals, as well as a high abrasion resistance in combination with excellent hygienic properties. The obtained surface does not support bacterial or mould growth. The unique formulation of RINOLCRETE PU-C560 ensures exceptional durability even when the coating is exposed to frequent thermal shocks and high temperature up to 90°C. Suitable also for freezer temperatures down to -25°C.

2 Installation instructions

Substrate preparation

The substrate must have sufficient load-bearing capacity. We recommend a minimum strength of 25 N/mm², which corresponds to a concrete C25/30 or screed strength class ZE, ME, AE30.

The substrate must have an adhesive tensile strength of at least 1.5 N/mm². In addition, it must be free of oily, greasy or release agent-containing impurities, loose parts, etc. Cracks and cavities must be repaired properly beforehand. The residual moisture of the substrate must be < 8 %. (measured according to the CM measuring method). It must also be ensured that there is no rising/pressing moisture.

Before applying RINOLCRETE PU-C560 as self-levelling mortar, prime the substrate with RINOLCRETE PU-P250 or RINOLCRETE PU-P250s. Alternatively, if resistance to high temperature is not required, it is possible to use a suitable RINOL EP primer. Primer must be applied according to the product data sheet. If RINOLCRETE PU-C560 is applied as scratch coat or as intermediate layer to be broadcasted, primer is not strictly needed. In this case, substrate should be prepared by vacuum shot-blasting, milling or accurate diamond grinding, swept and vacuumed.

Make sure that no silicone-containing or other reaction-disturbing substances come into contact with RINOLCRETE PU-C560 before and during the curing phase.

Processing

Before application, the material must be acclimatised at least to ambient temperature (room and floor temperature). The ideal temperature lies in the range 16-22°C; this is also the preferred temperature range for mixing, laying and curing. The product is supplied in pre-dosed multi-component packaging. Only complete containers may be mixed.

Shake the resin RINOLCRETE Comp. A 2,7Kg pack and pour it completely into a clean container. Add the liquid pigment RINOLCRETE Comp. D and mix briefly with an electric stirrer (worm shaft). Add the hardener RINOLCRETE Comp. B 2,7Kg pack and mix again for approx 30 seconds.

After gradual addition of the filler RINOLCRETE PU-C560 Comp. C, homogenise again for at least 2 minutes at 1500-2000 rpm. Make sure that the filler is



completely wet with the liquid components and the mixture is homogeneous and fluid enough. An adequate mixing time is essential to obtain a good self-levelling mortar. In case of temperatures lower than 20°C, it could be necessary to mix for longer time (approx. 3-4 minutes). Avoid air formation during stirring.

The product is poured on the prepared substrate and applied using a smooth trowel or notched trowel or pin rake in a layer thickness between 3 and 6 mm. Immediately after application, use a spiked roller to produce a smooth even finish. The spiked roller should be carried no more than 10cm into the previous mix. To ensure an even finish, all trowelling and spiked rolling should be completed before the mix is 5 minutes old.

If a slip-resistant surface is to be produced, the quartz sand or the aggregate should be broadcasted immediately after application, on the wet coating.

Make sure to maintain a constant mixing time between mixes. Variations in mix time can produce variations in colour shade and surface texture. Due to the relatively short material working time, careful preventive planning and enough labour are required to ensure to guarantee a continuous work flow in order that mixes are applied quickly and uniformly.

Product information		
1	Packaging size Component A (Resin) Component B (Hardener) Component C (Filler) Component D (Pigment)	19,7 Kg 2,7 Kg 2,7 Kg 14,0 Kg 0,3 Kg
2	Colours	See RINOLCRETE brochure
3	Shelf life / Storage	9 months at 5 - 30 °C, protect from freezing and direct sunlight, also during transport

Technical data		
liquid mixture (A+B+C+D)		
1	Density (20°C)	approx. 1,9 g/cm ³
2	Processing time (20°C)	approx. 10 minutes
3	Processing / material Room and ambient temperature	12 - 25 °C (min. 3 °C above the dew point also during installation and curing)
4	Material consumption (depends on the substrate, among other things)	approx. 1.900 g/m ² /mm layer thickness
5	Possible thickness	from 3 to 6 mm
6	Walkability (20°C)	after approx. 12 hours

Technical data		
liquid mixture (A+B+C+D)		
7	Next coating (20°C)	within 12-24 hrs.
8	full resistance mechanical (20°C) chemical (20°C)	after 7 days after 28 days
9	Rel. Humidity	Between 40 - 80 % during the entire laying and curing phase

Technical data		
Cured material Mixture		
1	Adhesive strength (DIN ISO 4624)	> 1,5 N/mm ² (concrete failure)
2	Flexural strength (DIN EN 196 / ASTM C 190)	20 N/mm ²
3	Compressive strength (DIN EN 196 / ASTM C 109)	58 N/mm ²
4	Tensile strength (ISO 527 / ASTM D638)	10 N/mm ²
5	Abrasion resistance (DIN 53754 / ASTM D 1044)	1210 mg / 1,000 cycles (Taber H22)
6	Coefficient of thermal expansion (DIN EN 1770 / ASTM C531)	3,6 x 10 ⁻⁵ °C ⁻¹
7	Water absorption (CPBM 2/67/2)	0 ml
8	Temperature resistance	RINOLCRETE STANDARD -25°C +90°C with a thick- ness of 6mm RINOLCRETE ANTI-SLIP -40°C +120°C with a thickness of 9mm

Re-coating

If reworking within 24 hours following application, the coating surface must be carefully prepared by vacuum shot blasting or diamond grinding. On fully broadcasted surfaces, surface preparation is not necessary. Before application, excess of broadcasted aggregates must be removed completely.

Health and safety measures

For information on handling the product, please refer to the latest and valid material safety data sheet and the chemical industry guidelines on handling coating materials (M004/M023). Wear suitable protective clothing and goggles during application. Clean tools immediately after finishing work with RINOL DE-X10.

Skin contact with liquid resins can lead to health impairments and allergies. Once properly cured, the product is physiologically nonhazardous.

Maintenance

To preserve the properties of the floor covering in the long term, we recommend regular care.

Please ask for our RINOLCRETE maintenance instructions.

The floor can be cleaned with most of the detergents and disinfectant solutions normally used in food industry, using mechanical cleaning machines, high-pressure water cleaners and gentle steam jet cleaners.

Note

The characteristic data are approximate values determined by us, which do not have the meaning of property assurances. No liability claims can therefore be derived from the product data sheet.

For possible layer build-ups and more detailed information on the installation of RINOLCRETE products, please refer to the RINOLCRETE Technical guide or contact our technical team.

Only the latest version of the technical data sheet is valid and replaces all older data sheets.

Important note

In addition to the ambient temperature, the substrate temperature is of decisive importance. Chemical reactions are generally delayed at low temperatures. At low temperatures, material working time and complete curing time of the coating is prolonged. Low temperatures increase material viscosity and therefore material consumption. At higher temperatures, chemical reactions are shortened, therefore material working time, recoating time and complete curing time of the coating are reduced.

The product has a surface structure that is usual for hand-laid coatings. Slight unevenness, color differences and visible trowel/roller marks cannot be avoided due to the raw material and processing. Surface appearance and color between the cove and the floor are not identical. UV exposure though not affecting the performance of the coating, will result in yellowing of the floor which is most apparent in light colours.

Protect the coating during application, curing and for the life of the floor from moisture on the reverse side and moisture under pressure.

The application examples are based on our best knowledge and experience. We always recommend testing on site before installation.

Legal notice

Due to the different materials, substrates and deviating working conditions, no guarantee of a work result or liability for whatever reason and / or legal relationship can be assumed by RCR Flooring Products Italia S.r.l. or RCR Flooring Products GmbH. In all other respects, the respective latest general terms and conditions of RCR Flooring Products Italia S.r.l. or RCR Flooring Products GmbH shall apply, which can be requested from us or viewed and printed out at www.rinol.com up to date. We expressly reserve the right to make changes to the product specifications.

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CE - marking

DIN EN 13813 "Screed material and floor screeds - Screed materials - Properties and requirements" (Jan.2003) specifies requirements for screed mortars used for indoor floor constructions.

Synthetic resin coatings and sealers are also covered by this standard. Products that comply with the above standard must be CE marked.

GIS Code: PU 40

For further information on the Giscode, please contact Wingis online at <https://wingisonline.de>.

 RCR Flooring Products Italia S.r.l. Via V. Chiarugi 76/U 45100 Rovigo - Italia
05 ¹ EN 13813
1119-CPR-0833 09 EN 1504-2

Synthetic resin screed/coating for interior use in buildings (structures according to technical data sheets)	
Fire behaviour:	Bfl-s1
Release of corrosive substances:	SR
Water permeability:	NPD ²
Abrasion Resistance:	AR 0,5
Adhesive tensile strength (bond):	B > 2,0
Impact Resistance:	IR > 4
Impact sound insulation:	NPD ²
Sound absorption:	NPD ²
Chemical resistance:	NPD ²

-1) the last two digits of the year in which the CE marking was affixed.

-2) NPD = No Performance Determined; characteristic value not determined

CE marking: 1504-2

Flooring systems that are subject to mechanical stresses and whose products comply with DIN EN 1504-2 must also comply with the requirement DIN EN 13813.

DIN EN 1504-2 "Products and systems for the protection and repair of concrete structures- Part 2:" "Surface protection systems for concrete" specifies the requirements for the surface protection methods" hydrophobic impregnation" impregnation and coating. If required, the corresponding leaflet can be requested.

EU Regulation 2004/42 (Decopaint Directive):

The maximum content of VOCs (product category IIA / j type sb) allowed in EU Regulation 2004/42 is 500g/l in the ready-to-use state (Limit 2010). The maximum content of RINOLCRETE PU-C560 in ready-to-use condition is <500g/l VOC.



RCR Flooring Products Italia S.r.l.

Via V. Chiarugi 76/U
I - 45100 Rovigo

Tel.: +39 (0) 425 411 200
Fax: +39 (0) 425 411 222

info.italy@rcrif.com
www.rinol.com

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MANAGEMENT SYSTEM
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