NEXA CRETE SELF-LEVELING

Self-leveling polyurethane-cement pavement, tricomponent, solvent-free

SELF-LEVELLING FLOORING

Description:

Self-leveling pavement of polyurethane cement tricomponent, free of solvents. The product is manufactured to withstand the toughest conditions of mechanical, chemical and physical resistance, being an ideal paving system for the food industry due to its exceptional properties, which make it resistant to steam pressure, disinfectants and other cleaning agents commonly used in the sector. Suitable as a satin finish for interior flooring.

Approved Uses

- Treatment, decoration, and protection of pavements, floors, and rehabilitation of:
  - Industrial floors.
  - Food processing floors.
  - Chemical processing floors.
  - Vehicular floors.
  - Commercial centers.
  - Refrigeration chambers.
  - Etc.
- Anti-static treatment
- Anti-slip treatment
- Anti-bacterial treatment
- Anti-dust treatment

Supported Substrates

Concrete, cementitious mortar, metal.

Advise: For other substrates, tests should be conducted to verify adhesion. For specific details or conditions on special substrates, please contact the technical department.

Limitations

- Since it is a cementitious material, it may present slight variations in color.
- Indoors, ensure proper ventilation during application and for the following 48 hours.
- In applications exposed to UV, yellowing may occur. We recommend finishing with water-based paints.
- Not suitable for application in swimming pools or reservoirs with treated water.
- For chemical applications, please consult the technical service.
- Improper treatment of cracks and specific areas may diminish the longevity of the waterproofing.

Advantages

- Solvent-free.
- Excellent adhesion on almost all substrates.
- Good abrasion resistance and impact resistance.
- Good mechanical resistance.
- Good chemical resistance.
- Excellent resistance to extreme temperatures (ranging from –40°F to +194°F / –40°C to +90°C). Maximum shock temperature 392°F (200°C).
- Resistant to steam and hot water +140°F to +194°F (+60°C to +90°C).
- Allows application on wet substrates.
- Fully waterproof. Suitable for continuous contact with water, hydrolysis, and microorganisms.
- Once cured, the screed is non-toxic and suitable for hygienic material and food floors.
- It accepts a damp substrate, but it should never be applied in the presence of water on the surface.

Application

- The substrate must be clean, free from grease, and dust, level with porosity, and dry.
- Before applying, confirm that the temperature and humidity requirements are as needed:
  Substrate temperature: >46.4°F to <77°F (>8°C to <25°C)
  Relative humidity: <85 %
  Compressive strength: 2175 psi (15 N/mm²).
  Concrete tensile strength: 145 psi (1 N/mm²).
- It is important to control the dew point to prevent condensation and avoid whitish areas on the coating.
- Do not apply at temperatures below 41°F (5°C).
- A porous concrete substrate is required, free of grout and curing liquids.
- In case of doubt, perform a test before application.
- For specific substrate peculiarities or special conditions, please contact the technical department.
- Priming the substrate with primer beforehand.

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- The three components should be mixed with the aid of a low-speed (300-400 rpm) electric mixer to avoid the inclusion of air in the mixture.
- Whisk component B well in its container for 2 minutes. Then add the contents of component C Hypercrete (powder) to the contents of component B of the Hypercrete (pigmented liquid RAL or unpigmented amber). Mix for 3-4 minutes until the liquid is homogeneous. We recommend adding component A (dark brown liquid) just before mixing and mixing for about 30 seconds. Pour as soon as possible.
- If overmixed, occluded air bubbles may appear.
- Do not dilute the product; it is ready for use. If better workability is desired, add some powder gradually.
- Apply the product by pouring continuously to avoid the formation of air pockets.
- Spread with a notched trowel to achieve the desired thickness.
- Deaerate with a spiked roller immediately after paving if smooth finishes are desired. Delay may cause roller marks.
- It is recommended to condition the product and environment at temperatures between 59-77°F (15-25°C) for optimal workability and drying.
- The pot life is approximately 12-15 minutes at 77°F (25°C).
- The repainting will be done once the previous coats are dry, approximately 6-24 hours. Do not repaint after 48 hours.
  Dry to touch: 4-6 hours
  Pedestrian traffic: 24 hours
  Light traffic: 2 days
  Heavy traffic and chemical resistance: 3 days
  Full cure: 28 days
  (Approximate temperature 77°F / 25°C and 55% RH.)
- The times are approximate and may be influenced by changes in environmental conditions, especially variations in humidity and temperature.
- Proper ventilation must be ensured to remove excess moisture during curing, at least within 48 hours after application.
- Color with pigment paste: Colors from the lighter color chart.
- Powder pigment colors: white, black, green, red.
- For anti-slip finishes, we recommend sprinkling fresh sand over the NEXACRETE SELF-LEVELING and, once dry, sealing it with NEXACRETE FC pigmented to the desired color. This finish maintains all the properties of the product.
- For aesthetic finishes with smooth or anti-slip RAL colors, we recommend sealing with NEXA EPOX A pigmented according to the desired RAL. This sealer slightly decreases the thermal and chemical properties. If necessary, consult with the technical department.
- For smooth transparent or non-slip sealing, use NEXA FLOOR 2K. This sealer slightly reduces the thermal and chemical properties. If necessary, consult with the technical department.
- For abrasive anti-slip finishes, add NEXA FLOOR 2K sealer with corundum at a rate of 0.02-0.08 lb/ft² (0.1-0.4 kg/m²). For non-abrasive anti-slip finishes, add anti-slip in the same proportion. These sealers slightly decrease the thermal and chemical properties. If necessary, consult with the technical department.
- To maintain the appearance of the flooring after application, all spills should be removed immediately. The screed should be cleaned regularly using rotary brushes, low-pressure cleaners, vacuum cleaners, and appropriate detergents and waxes.

Cleaning

- Tools should be cleaned immediately after use with water.
- Fully hardened material can only be removed by mechanical means.

Consumption

- Thickness: 0.16-0.39 inches (4-10 mm).
- Approximate consumption: 16.5 lb/ft² (8 kg/m²) for 0.16 inches (4 mm).

NEXA COATINGS
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Presentation and Colors

Lots of 55.12 lb (25 kg).
Pigment colors in paste: approximate RAL color.

- Comp. A: 7.72 lb (3.5 kg) (dark brown liquid).
- Comp. 9.81 lb (4.45 kg) (approximate RAL color).
- Comp. C: 37.59 lb (17.05 kg) kg (sand color).

Lots of 55.12 lb (25 kg)
Pigmented powder (red, gray, white, beige, green, black...), proportions:

- Comp. A: 7.94 lb (3.6 kg) (dark brown liquid).
- Comp. B: 7.94 lb (3.6 kg) (amber liquid).
- Comp. C: 39.24 lb (17.8 kg) powder (red, gray...).

Container Stability

12 months in a dry place between 41 ºF a 77 ºF / 5 ºC a 25 ºC.

Transportation, Preventive measures and Storage

Refer to the safety data sheet.

The information provided serves as a recommendation based on laboratory tests and our current knowledge. Different conditions on construction sites may result in variations from the given information; therefore, our warranty is limited to the supplied product. For any questions, please contact our technical department.

Technical data of the liquid product

CONCEPTS	RESULTS
Physical appearance	C.A Y C.B Liquid C.C Powder
Mixing ratio by weight Pigmented paste	C.A. 3 Kg C.B. 3,87 Kg C.C 17,13 Kg
Mixing ratio by weight Pigmented powder	C.A. 3,60 Kg C.B. 3,60 Kg C.C 17,80 Kg
Chemical base	Polyurethane-cement
Density of components ASTM D1475 / DIN 53217 / ISO 2811 a 68ºF (20ºC)	C.A 1 g/cm3 C.B 1,2 g/cm3 C.C 1,4 g/cm3
Viscosity ASTM D2196-86 a 77ºF (25ºC)	C.A 1000 cP C.B 250 cP
Pot life at 77ºF (25ºC)	12-15 Minutes

Technical data of the membrane

CONCEPTS	RESULTS
Support temperature	>+46.4 ºF a <+77 ºF (>+8 ºC a <+25 ºC)
Room temperature	>+41 ºF a <+77 ºF (>+5 ºC a <+25 ºC)
Relative humidity	<85 %
Substrate humidity	Accepts moisture
Resistance to temperatures	-58 ºF a +248 ºF (-50 to +120 ºC)
Resistance to hot water Thickness 0.16 pulgadas (4mm) Thickness 0.24 pulgadas (6mm) Thickness 80.31-0.47 pulgadas (8-12mm)	 140 ºF (60ºC) 158 ºF (70ºC) 176 ºF (80ºC)
Compressive strength	>8702 psi (>60 Mpa)
Tensile strength	1305 psi (9 Mpa)
Flexural strength	2901 psi (20 Mpa)
Wear resistance UNE-EN 13892-4:2003	 0.00098 pulgadas (25 µm)
Adhesion strength by pull-off test ASTM D4541	 406 psi (2.8 Mpa)
Water vapor transmission	0.00016 lb/ft²·h (0.8 g/m2.h)
Water absorption	<0.1%

For more information about our products and systems, as well as technical documentation downloads or safety data sheets, please visit our website or contact us.

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