RAYCRETE M

High resistance cementitious polyurethane-ciment

DESCRIPTION

Raycrete M is a solvent-free mortar screed which can be applied by trowel at a thickness between 12 and 60mm.

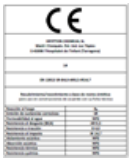
- Very resistant to organic acids and cleaning agents
- It is applied in one single layer
- Fast curing (between 4 hours and over night)
- Temperature stable
- High durability
- Resistant to thermal shocks (Cleaning with hot high pressure water)

APPLICATION

The screets made with Raycrete M are a good tool for repairing sloped surfaces.

- Food industry; canneries, freezers…
- Food processing plants, kitchens.
- Chemical and pharmaceutical industry
- Vehicle maintenance, electroplating and any area of heavy use.

CERTIFICATIONS



TECHNICAL DATA

INFORMATION ABOUT THE PRODUCT BEFORE THE APPLICATION			
	Componente A	**Componente B**	**Componente C**
Chemical description	Waterborne polyol dispersión + Pigment (Comp D)	Aromatic Polyisocyanate + Pigment (Comp. D)	Sanded cement composition + Pigment (Comp D)
Physical state	Liquid	Liquid	Powder
Presentation	Plastic container 1,9 kg Pigment Comp D= 0,2 kg)	Metal container 2.2 kg	Plastic container/bag 19.5 kg
Colour	Pigmented Green Red Grey Yellow	Brown	Off white
Density	0.97 g/cm^3	1,20 g/cm^3	1.55 g/cm^3 (bulk)
Viscosity Approximate values Brookfield	Temp ºC / Visc. (MPa): 10 / 900; 25 / 250; 35 / 100	Temp ºC / Visc. (MPa): 10 / 200; 25 / 90; 35 / <60	n.a.
VOC	<7g/L	0	0
Viscosity Approximate values Brookfield	1.0 g/cm3 (23ºC)	150 MPa (20ºC)	n.a.
VOC	<25g/L, <0,5%	<2 g/L, 0.5%	n.a.
Mixture density	1,5 g/cm3		
Mixing ratio	A=10.9, B=11.2 C=100 by weight A=18, B=15 C= 100 by volume		
Pot life approx.	30 minutes (23ºC)		
Storage	Keep between 10º and 30ºC. Frost sensitive.		
Use before	12 months after manufacturing date.		

INFORMATION ON THE FINAL PRODUCT	
Final state	Rigid and even film
Colour	Pigmented
Hardness Shore (ISO 868)	82 D
Adhesion strength	Concrete: >10 MPa
Use temperature	12 mm: -40ºC to +130ºC
UV resistance	Aromatic isocyanate based product. Yellowing undersunlight when applied outdoors is to be expected. Thisdoes not impair mechanical properties.
Chemical resistance	Surface contact (24 h, room temperature, 5=ok, 0=notrecommended)

Chemical	Result
Water	5
Ammonia (3%)	5
Methoxypropylacetate	5
Xylene	5
Hydrochloric acid	5
Ethyl alcohol	5
Acetic acid (100%.)	3
Acetic acid (50%)	4
Tetrahydrofurane	5
Hydrogen peroxide	5
Bleach	5
Diesel	5
Sodium hydroxide(40g/L)	5
Phosphoric acid	5
Sulphuric acid 98%	3
Phosphoric acid 85%	5
Isopropyl alcohol	5

SUPPORT REQUIREMENTS

In order to achieve a good penetration and bonding, support must be:

1. Flat and leveled
2. Coct and cohesive (pull off test must show a minimum resistance of 1,4 N/mm2).
3. Free from cracks and fissures. If any, they must be previously repaired.
4. Clean and dry, free of dust, loose particles, oils, organic residues or laitance.

AMBIENTAL CONDITIONS

The product should be applied at a support temperature of at least 3ºC above dew point, an air temperature above 15ºC and relative humidity should be lower than 80%.
The maximum application temperature shall not surpass 40ºC.
These temperatures must be constant throughout drying process. Application should be done with plenty of air/ventilation.

SUPPORT PREPARATION

Concrete surfaces need to be prepared mechanically by milling techniques to lift the surface and open the pores. The result should be a rough surface with irregularities between 1 and 2mm.
It is important to create regularly spaced joints in the concrete, depending on the surface which is to cover and on the length of the ends of the application.
Remove all kind of dust and loose materials from the surface with a brush, broom or vacuum cleaner.

MIXING

Mix the components in a bucket of enough capacity and stir gently. Dosification is as follows:

Component A: 1 unit (2,1 kg)
Component B: 1 unit (2,2kg)
Component C: 1 unit (19,5 kg)

Mixing should be carried out with a mechanical mixer. Pour the previously mixed material gently onto the prepared surface and extend it with a trowel or a rake. Close superficially with a steel trowel. Don't create a superficie wich too much resin.

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To obtain best results, air and material temperatures should lay between 15 and 25ºC. Surface temperature should be at leaast 8ºC.
Don't apply if there are condensations or if there's the possibility that they appear during the application or curing. for example, when dew point is reached or when the surface and air temperature are at less than 3ºC from the dew point.

APPLICATION / CONSUMPTION

Apply with a trowel or a spatula. Approximate consumptions

Dry thickness(mm)	Consumption(kg/m$^{2)}$
12	21
25	44
45	79
60	105

Recommended application: generally, beween 12 and 60 mm.

CURING TIME

Conditions	Dry to touch (h)
25ºC, 60% rh	20

REAPPLICACION

Usually the needed thickness can be achieved in a single coat.

RETURN TO SERVICE

Depending on the ambient conditions, light traffic is allowed after 24 hours. Total hardness and full use (e.g. heavy vehicles) is reached after 6 days.

TOOL CLEANING

Use water before curing.

SAFETY

Component B contains isocyanates. Always follow instructions provided in the Material Safety Data Sheet. As a general rule, suitable skin and eye protection must be worn. This product is intended to be used only for the uses and in the way here described. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses.

ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled with the same precautions as if they were full.
Treat empty containers as hazardous waste, and transfer them to an authorized waste manager. If the containers still have some material left, do not mix with other product before considering the risk of potential dangerous reactions. Never mix in volumes larger than 5 litres in order to prevent a dangerous heat evolution.

OTHER INFORMATION

The information contained in this DATA SHEET, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.
We recommend studying deeply all information provided before proceeding to the use or application of any of our products, and strongly advise to conduct tests "on-site" in order to determine their convenience for a specific project.
Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise. The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials

This data sheet supersedes previous versions.

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