

Highly resistant cementitious polyurethane

DESCRIPTION AND APPLICATIONS

Raycrete P is a cementitious polyurethane system for antislip surfaces and sealing/repair works within Raycrete family. Suitable where aggressive media and thermal shock resistance is needed. It comprises a three component pre dosed kit comprising two liquids and a mineral filler. Different colours available.

- Resistant to organic acids and detergent products
- One single coat
- Fast curing (4 to 15 hours)
- Thermal shock resistant.
- Durable

APPLICATIONS

Suitable for floors where resistance to frequent hot spray cleaning and aggressive detergent cleaning is necessary

- Food industry
- Food processing. Kitchens
- Chemical industry
- Other heavy duty industrial facilities

All these applications need a compromise between surface roughness and ease of cleaning. Smoother floorings may accept a more frequent cleaning, while rougher surfaces may need a more aggressive one.

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B	Component C
Chemical description	Waterborne polyol dispersion + Pigment (Comp D)	Aromatic polyisocyanate	Cement composition
Physical state	Liquid	Liquid	Liquid
Packaging (Pigment is supplied in a separate container)	Plastic container 1.99kg + Pigment (Comp D= 0,18kg)	Metal container 2.25 kg	Plastic container/ Sack 3.5 kg
Solid content (%) approximate	75	100	100%
Flash point	>120°C	>120°C	n.a.
Colour	White Pigment delivered separately	Brown	Off white
Density	0.97 g/cm3	1.20g/cm3	1.55 g/cm3 (bulk)
Viscosity	Temp °C Visc. (s)	Temp °C Visc. (s)	n.a
Approximate values Brookfield	10 900 25 250 35 100	10 200 25 90 35 <60	
VOC	<0,5%	<0,5%	na
Mixing ratio	A=1.99, B=2.25 C=0.18 by weight A=43, B=36 C= 100 by volume		
Mixture density	1.75 g/cm3		
Pot life approximate	20 minutes (23°C)		
Storage	Keep between 10° and 30°C. Frost sensitive.		
Use before	12 months after manufacturing date.		

INFORMATION ON THE FINAL PRODUCT

Final state	Hard, rigid slab
Colour	Pigmented
Hardness (shore)	82D
Adhesion strength	Concrete: >10
Chemical resistance	Surface contact (24 h, room temperature, 5=ok, 0=not recommended)

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

Use temperature -20°C to 180°C

UV resistance Aromatic isocyanate based product. Yellowing under sunlight when applied outdoors is to be expected. This does not affect mechanical properties.

SUPPORT REQUIREMENTS

Concrete surfaces must be previously prepared by scarifying or any other suitable means to obtain a rugged (1-2 mm) and clean surface. Cut regularly spaced joints spaced along the concrete slab depending on the total surface to be covered, and also along all the edges.

Remove all dust and loose material before priming.

AMBIENTAL CONDITIONS

Optimal temperature range for application is 15°C to 30°C. At lower temperatures, leveling may be hindered. Support temperature must be at least 3°C above dew point. Relative humidity should be less than 80%. These temperatures must be constant throughout drying process. Application should be done with plenty of air/ventilation.

MIXING

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

Component A: 1.99 kg (one container)
Component B: 2.25kg (one container)
Component C: 3.5 kg (one container)
Component D: 0.18 kg (one container)

Mixing should be quick, continuous and avoiding air entrapment. It is not recommended to use electrical, open air stirrers. Best equipment is a low speed mixing machine equipped with a closed lid.

APPLICATION

Use a suitable spreader or roller. Use of spike roller is advisable for proper deaeration, if the mixture is still fluid enough.

Recommended amounts to achieve desired thickness (approximate) are as follows:

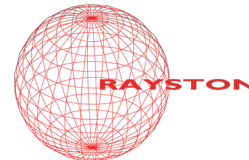
Raycrete P (sealing over sand broadcast 0.1-0.5mm): 0,4 – 0,5 kg/m2
Raycrete P (sealing over sand broadcast 0.3-0.8mm): 0,7 – 0,9 kg/m2

CURING TIME

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

REAPPLICATION

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



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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 to study 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, the 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.