



Highly resistant cementitious polyurethane

DESCRIPTION AND APPLICATIONS

Raycrete SL is a cementitious polyurethane system for applications 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
- Thermal shock resistant.
- Durable

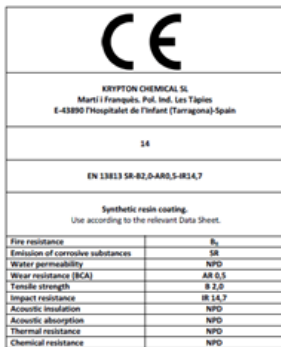
APPLICATIONS

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.

CERTIFICATIONS



Instituto Giordano. Food contact:

UNI EN ISO 4628-4:2007 from 11/01/2007

UNI EN ISO 4628-2:2007 from 11/01/2007

UNI 10792:1999 from 31/12/1999

UNI 11021:2002 from 01/12/2002

APPLUS. Self-leveling floor pastes, UNE-EN 13813:2014

1. Resistance to compression and flexotraction, UNE-EN 13892-2:2003
2. Determination of bending properties, UNE-EN ISO 178:2003
3. Determination of liquid water permeability, UNE-EN 1062-3:2008
4. Determination of thermal expansion, UNE-EN 1770:1999
5. Determination of water vapor permeability, UNE-EN 12086:2013

Reaction to fire. Aitex. Report 2016AN1481 as per EN 13501-1:2007

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 3.1kg + Pigment (Comp D= 0,3kg)	Metal container 3.5 kg	Plastic container/ Sack 12.6 kg

Solid content (%) approximate	75%	100%	100%
Flash point	>120°C	>120°C	n.a.
Colour	Pigmented Green Red Gray Yellow	Brown	Off white
Density	0.97 g/cm3	1.20g/cm3	1.55 g/cm3 (bulk)
Viscosity	Temp °C 10 900 25 250 35 100	Temp °C 10 200 25 90 35 <60	Temp °C 10 200 25 90 35 <60
VOC	<7 g/L	0	0
Viscosity	1.0 g/cm3 (23°C)	150 (20°C)	n.a.
Mixing ratio	A=27, B=28 C=100 by weight A=43, B=36 C= 100 by volume		
Mixture density	1.75 g/cm3		
Pot	20 minutes (23°C)		
Life (approximate)	Keep between 10° and 30°C. Frost sensitive.		
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) (ISO 868)	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
Tetrahydrofuran	5
Hydrogen peroxide	5
Bleach	5
Diesel	5
Sodium hydroxide (40g/L)	5
Phosphoric acid	5
Sulphuric acid 98%	4
Phosphoric acid 85%	5
Isopropyl alcohol	5

Use temperature	4 mm: -15°C to +70°C 6 mm: -25°C to +80°C 9 mm: -40°C to +120°C
UV resistance	Aromatic isocyanate based product. Yellowing under sunlight when applied outdoors is to be expected. This does not affect mechanical properties.
Reaction to fire	Bfl-s1 as per EN13501-2007



KRYPTON CHEMICAL SL

C/ Martí i Franqués, 12 - Pol. Ind. les Tàpies
43890 - l'Hospitalet de l'Infant - Spain

Tel: +34 977 822 245 - Fax: +34 977 823 977

www.kryptonchemical.com - rayston@kryptonchemical.com

RAYCRETE SL

RAYSTON
products



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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.



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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.

SUPPORT PREPARATION

Support preparation: Concrete supports must be prepared mechanically using the blasting technique to lift the surface and achieve an open pore and a rough surface, with irregularities ranging from 1 to 2 mm.

They must open together in the concrete to regular spaces, depending on the surface to be covered, and, in addition, along the end of the application area.

Remove all dust and loose material from the surface with a brush or broom.

MIXING

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

Component A: 1 unit (3.4 kg)

Component B: 1 unit (3.5 kg)

Component C: 1 unit (12.6 kg)

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 AND CONSUMPTION

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

Recommended amounts to achieve desired thickness (approximate) are:

Dry thickness mm	Consumption kg/m ²
1	1.75
2	3.5
5	9
8	14

Recommended thickness 2 to 10 mm. If thermal resistance is needed, apply no less than 6 mm thick.

CURING TIME

For a 4 kg/m² application

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

REAPPLICATION

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 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.