

EP COAT 100

RAYSTON
products



100% solids, pigmented performance epoxy coating for flooring applications

DESCRIPTION

Pigmented, 2-component epoxy coating for concrete surface protection. Designed for general purpose uses in multilayer systems, from the primer coat to the topcoat layer.

APPLICATION

Multilayer protective coating for heavily used concrete floors, in all kinds of indoor areas:

- Industrial flooring
- Poorly ventilated areas.
- Parking decks.
- Warehouses.
- Shops.

This material can be used as a primer and as a component of all the steps in a multilayer system. Also suitable as a self-leveling flooring resin. The different available option depends on the application choices, fillers and the pigmentation options.

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B
Chemical description	Epoxy resin	Polyamine mixture
Physical state	Liquid	Liquid
Packaging	Metal container 20 kg	Metal container 5 kg
Non-volatile content	>95%	98%
Flash point	>120°C	>100°C
Colour	Pigmented	Colourless
Density	Tempera ture (°C) 25 Density (g/cm ³) 1.57	Tempera ture (°C) 25 Density (g/cm ³) 1.05
Viscosity	Tempera ture (°C) 25 Viscosity (mPa.s) 3000	Tempera ture (°C) 25 Viscosity (mPa.s) 150
VOC	<10 g/L, <2%	20 g/L, <2%
A/B mixing ratio	A=100, B=25 by weight	
Mixture properties	Density: 1.49 g/cm ³ at 23°C Viscosity: 1200 mPa.s at 23°C	
Pot life	Temperature (°C) 6 25 35	Pot life (100g, min) >70 40 25
Storage	Keep between 15°C and 30°C. Component A may crystallize if stored for protracted periods under certain conditions. If this occurs, it can be restored to its original condition by heating it to 70 - 80 °C and stirring it thoroughly.	
Use before	12 months after manufacturing date, in its unopened container.	

INFORMATION ON THE FINAL PRODUCT

Final state	Rigid, glossy, homogeneous material
Colour	Pigmented. Available colours are RAL 1003, 1014, 2010, 3002, 3009, 5015, 5017, 6002, 7001, 7004, 7011, 7035, 8024, 9005, 9003. Other colours under request.
Hardness (Shore)	80D (ISO 868)

Fire behaviour	Bfl-s1 (EN 13501-1:2007)
UV resistance	Undergoes slight yellowing under sunlight. No mechanical properties are affected.
Thermal resistance	Up to 80°C
Mechanical properties	Maximum elongation: 2,5% Tensile strength: 17 MPa Tear: 29 N/mm

Chemical resistance	Permanent contact (3 days, 80°C)	
	Chemical	% weight gain
	Water	0
	Methoxypropyl acetate	5
	Isopropyl alcohol	0
	Skydrol	0
	Xylene	3
	Ammonia (3%)	0
	Acetone	25
	Diesel	0
	Hydrogen peroxide	0
	Sodium hydroxide (40 g/L)	0
	Bleach	2
	Sulphuric acid (10%)	0
	Sulphuric acid (30%)	0
	Sulphuric acid (50%)	0
	Acetic acid (10%)	2

Surface contact (24h, room temperature, 5=ok, 0=not recommended)

Chemical	Result
Water	5
Ethyl alcohol	5
Engine oil	5
Vinegar	5
Hydrogen peroxide	5
Sulphuric acid (10%)	5
Sulphuric acid (30%)	5
Sulphuric acid (50%)	4
Isopropyl alcohol	4
Xylene	5
Ammonia (3%)	5
Diesel	5
Methoxypropyl acetate	4
Acetic acid (10%)	5
Bleach	5
Sodium hydroxide (40 g/L)	5
Acetone	3
Skydrol	5

SUPPORT REQUIREMENTS

- In order to achieve a good degree of penetration and bonding, support must be:
1. Flat and levelled (product is self-levelling)
 2. Compact and cohesive (pull off test must show a minimum resistance of 1,4 N/mm²).
 3. Even and regular surface
 4. Free from cracks and fissures. If any, they must be previously repaired.
 5. Clean and dry, free of dust, loose particles, oils, organic residues or laitance.



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SUPPORT PREPARATION

Concrete surfaces must be previously prepared by sandblasting or any other suitable means. Remove all dust and loose material before priming. The recommended temperature of the support is 15-25°C, but not less than 10°C. The temperature of the support must exceed the "dew point" by 3°C during application and drying.

RECOMMENDED ENVIRONMENTAL CONDITIONS

The recommended temperature of the support is 15-25°C, but not less than 10°C. The temperature of the support must exceed the "dew point" by 3°C during application and drying.

MIXING

Stir and homogenize thoroughly component A and B using a low-speed stirrer. The mixture turns to a homogeneous clear liquid. Mix the quartz filler afterwards if desired. Do not mix more material than the usable amount within the pot life window.

APPLICATION

Pure resin requires roller or rubber spreader or squeegee. Combinations with filler requires application by metal spreader. The pure resin is applied to roller or rubber rake. Combinations with aggregates may require the use of a metal trowel. In light colors it may be necessary to have more than 2 coats depending on the base color to obtain a good covering. Colours as RAL 1003, 1014, 2010, 3002 and 9003 will have a consumption of 600 g/m², usually applied in several layers.

CURING TIME

Application: 1 kg/m²

Conditions	Dry to touch (h)
35°C, 25% rh	2
35°C, 50% rh	8
23°C, 5% rh	9
7°C, 60% rh	>20
-15°C	No cure

RECOATING

Normally possible after 24 hours.

RETURN TO SERVICE

Light traffic allowed after 24-48 hours. Final hardness is achieved after 7 days (approximate). Caution: contact with water when not fully cured may lead to white stains. The application of the product at temperatures below 10°C could cause waterspotting effect. If applications below 10°C are suspected, it will be advisable to apply a sealing layer before 24h of Colodur ECO.

TOOL CLEANING

Component A and B can be cleaned with solvent Rayston. Cured product cannot be dissolved.

FAQ

Problem	Cause
Reaction is too fast. Short pot life.	Too much product mixed If mixed in smaller volumes or the mixture is spreaded as soon as it is ready, pot life will be longer.

SAFETY

Epoxy components are potentially sensitizing. Component B is corrosive. Always follow instruction provided in the Material Safety Data Sheet. As a 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 taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager. If there is some residual product in the containers, component A and B can be mixed, always according to the A/B ratio, and allowed to cure. Do not mix volumes bigger than 5 litres to prevent dangerous reactions.

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, 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.