

EP NIVEL / EP NIVEL CLEAR

RAYSTON
products



Self-levelling epoxy coating

DESCRIPTION

Self-levelling colorless or pigmented epoxy coating for surface protection. Allows obtaining self-levelling flooring 2-3 mm thick in one coat. Suitable for concrete floors exposed to intense use in all kind of indoor areas. Can be completed with up to 33% of mineral filler. one part of resin: 0,5 of aggregate 0,1 - 0'3 mm.

APPLICATION

Designed for applications in dry zones. Usable on wet zones if sand is broadcasted on top. Smooth, glossy finish and easy to clean. Best suited for:

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

CERTIFICATIONS

CE Marking. EN 13813:2002 CfI-SR-B2,0-AR0,5-IR14,7. DoP 20-734



TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

| | Component A | Component B | | |
|--------------------------|--|---------------------------------------|------------------|-------------------|
| Chemical description | Epoxi resin | Polyamine mixture | | |
| Physical state | Líquid | Líquid | | |
| Packaging | Metal container (colorless) 10 kg | Metal container (colorless) 5 kg | | |
| | Metal container (pigmented) 20,9 kg | Metal container (pigmented) 4,1 kg | | |
| Non-volatile content (%) | >95% | 98% | | |
| Flash point | >120°C | >100°C | | |
| Colour | Colorless or pigmented | Colorless | | |
| Density | Temperature (°C) | Density (g/cm³) | Temperature (°C) | Density (g/cm³) |
| | 25 | 1,68 | 25 | 1,05 |
| | 25 | (colorless) 1,11 | | |
| | | (pigmented) | | |
| Viscosity | Temperature (°C) | Viscosity (mPa.s) | Temperature (°C) | Viscosity (mPa.s) |
| Brookfield approximate | 35 | 60 | 35 | 83 |
| | 25 | 170 | 25 | 150 |
| | 15 | 375 | 15 | 320 |
| | 5 | 710 | 5 | 800 |
| VOC | 7g/L, <0.7% (colorless) | 20 g/L, <2% | | |
| | <10g/L, <2% (pigmented) | | | |
| Mixing ratio | A=100, B=40 by weight (colorless) A=100, B=19 by weight (pigmented) | | | |
| Mixture properties | Colorless 1,06 g/cm³ at 23°C 236 mPa.s at 23°C Pigmented 1,6 g/cm³ at 23°C 1700 mPa.s at 23°C | | | |
| Pot life | Temperature (°C) | Pot life (100 g, min) | | |
| | 6 | >70 | | |
| | 25 | 40 | | |
| | 35 | 25 | | |
| Storage | Keep between 10° 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

INFORMATION ON THE FINAL PRODUCT

| | |
|----------------------------|---|
| Final state | Rigid, glossy, homogeneous material |
| Colour | Pigmented. Available colours RAL 1001, 3009, 5015, 6021, 7001, 7011, 9003, 9004, 6002, 8001. Other colours under request. |
| Hardness (Shore) (ISO 868) | 80D |
| Mechanical properties | Maximum elongation: 8% Tensile strength: 23 MPa |
| UV resistance | Undergoes slight yellowing under sunlight, hardly noticeable in indoor applications. No mechanical properties are affected. It is not evident for most colours. |
| Use temperature | Stable up to 80°C |

| Adhesión strength | Surface | Adhesion (MPa) |
|-------------------|--------------------------|----------------|
| | Concrete (EP 100 primer) | >5 |

Chemical resistance Permanent contact (3 days, 80°C)

| Chemical | % weight gain |
|------------------------|---------------|
| Water | 0 |
| Methoxypropyl acetate | 25 |
| Isopropyl alcohol | 5 |
| Skydrol | 0 |
| Xylene | 10 |
| Ammonia 3% | 0 |
| Acetone | 25 |
| Diesel | 0 |
| Hydrogen peroxide | 0 |
| Sodium hydroxide 40g/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 40g/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 leveled (Product is self-levelling)
 2. Coct and cohesive (pull off test must show a minimum resistance of 1,4 N/mm²).
 3. Even and regular surface



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- Free from cracks and fissures. If any, they must be previously repaired.
- Clean and dry, free of dust, loose particles, oils, organic residues or laitance.

SUPPORT PREPARATION

Concrete surfaces must be previously prepared by sandblasting or any other suitable means. Remove all dust and loose material before priming.

RECOMMENDED ENVIRONMENTAL CONDITIONS

Support temperature must be 3°C above dew point at least. Air temperature should be above 5°C and relative humidity less than 80%. Maximum application temperature is 40°C. Best conditions are 10°C-30°C. These conditions should be maintained along all the curing time. Application should be done with plenty of air ventilation.

MIXING

Stir and homogenize thoroughly component A and B using a low-speed stirrer. The mixture turns to a homogenous clear liquid. It can be mixed with 0.1-0.3mm sand at a ratio of resin:1, filler: 0.5. 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 require application by metal spreader. Pass a spike roller while still liquid.

CONSUMPTION

Consider a consumption of 3 kg/m². In EP Nivel Clear, in combination with metallic pigments the consumption per layer will be 0.8-1 kg/m² in background layers, and 1-1.5 kg/m² in the decorative layer.

CURING TIME

Application 1 kg/m².

| Conditions | Touch dry (h) |
|--------------|---------------|
| 35°C, 25%hr | 2 |
| 35°C, 50% hr | 8 |
| 23°C, 5% hr | 9 |
| 7°C, 60%hr | >20 |
| -15°C, | No cure |

REAPPLICATION

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 the waterspotting effect.

If applications below 10 °C are suspected, it will be advisable to apply a sealing layer before 24 h of Colodur ECO.

QUESTIONS

| Problem | Cause | Solution |
|---|------------------------|--|
| 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 is longer. |

TOOL CLEANING

Clean tools with Solvent Rayston.

SAFETY

Epoxy components are potentially sensitizing. Component B is corrosive. Always follow instruction 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.



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