EP COAT 100

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 kind 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 depend on the application choices, fillers and the pigmentation options.

CERTIFICATIONS

- **Fire behaviour**: Exp 14/RC-15 (FCBA, France)
- **CE** Marking

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 12 kg	Metal container 3 kg
Non- volatile content (%) approximate	>95%	98%
Flash point	>120ºC	>100ºC
Colour	Pigmented	Colourless

Density

Temp (ºC)	Density (g/cm3)	Temp (ºC)	Density (g/cm3)
25	1.14	25	1,05

Viscosity Brookfield approximate

Temp(ºC)	Viscosity (mPa.s)	Temp (ºC)	Viscosity (mPa.s)
25	1500-3500	35	83
		25	150
		15	320
		5	800

VOC	<10g/L, <2% — 20 g/L, <2%
Relation A/B	A=100, B=25 en peso
Mixture properties	1,10 g/cm3 at 23ºC 1000 mPa.s at 23ºC Pigmented

Pot life

Temp (ºC)	Pot life (100 g, min)
6	>70
25	40
35	25

Storage	Keep between 15º and 30ºC. 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

FINAL PRODUCT INFORMATION

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
Fire behaviour	Bfl-s1 (EN 13501-1:2007)
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 80ºC
Mechanical properties	Elongation: 2,5% Tensile strength: 17 MPa Tear: 29 N/mm
Chemical resistance	Surface contact, (0=worst, 5=best)

Chemical	Result
Vinegar (7 days)	5
Sulphuric acid 96% (24h)	2
Hydrochloric acid 5% (24h)	4

SUPPORT REQUIREMENTS

In order to achieve a good degree of penetration and bonding, support must be:
1. Flat and leveled (Product is self-leveling)
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.

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 3ºC above dew point at least. Air temperature should be above 5ºC and relative humidity less than 80%.
Maximum application temeprature is 40ºC.
Best conditions are 15ºC-30ºC. These conditions should be maintained along all the curing time. Application should be done with plenty of air ventilation.

MIXING

Stir and homogeneize thoroughly component A and B using a low-speed stirrer. The mixture turns to a homogenous 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 os squeegee. Combinatins with filler require application by metal spreader.

CURING TIME

Application 1 kg/m2.

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

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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.

QUESTIONS

Problem	Cause	Solution
Reaction is too fast. Short pot life	Too much product mixed	If mixed in smaller volumes or the mixtrure 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 containes 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.