TECHNICAL DATA SHEET

EP MULTILAYER VARNISH

100% SOLIDS, PERFORMANCE EPOXY COATING FOR FLOORING APPLICATIONS

DESCRIPTION

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

APPLICATIONS

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

- **CE Marking**

EN 13813 SR-B2,0-AR0,5-IR14,7

CE

Technical data

PRODUCT INFORMATION

	Component A	Component B
Chemical description	Epoxy resin	Polyamine mixture
Physical state	Liquid	Liquid
Packaging	Metal container 10 kg 5 kg	Metal container 4 kg 2 kg

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Non-volatile content (%) Approximate	>95%	98%
Flash point	>120ªC	>100ºC
Colour	Colourless	Colourless

Density

Temperature (ºC)	*Density (g/cm3)*
25ºC	1.12

Temperature (ºC)	*Density (g/cm3)*
25	1,05

Viscosity
Approximate
Brookfield

Temperature (ºC)	*Viscosity (mPa.s)*
35	100
25	170
15	260
5	900

Temperature (ºC)	*Viscosity (mPa.s)*
35	83
25	150
15	320
5	800

VOC Content <10g/L, <2% 20 g/L, <2%

Relación A/B A=100, B=40 by weight
A=100, B=43 by volume

Mixture properties 1,10 g/cm3 at 23ºC
300 mPa.s at 23ºC
Colourless

Pot life
Approximate

Temperature (ºC)	*Pot life (100 g, minutes)*
6	>70
25	40
35	25

Storage Keep between 10º and 30ºC

Use before 12 months after manufacturing date

FINAL PRODUCT INFORMATION

Final state Rigid, homogeneous material

Colour Colourless

Hardness
Shore (ISO 868) 65D

UV resistance Undergoes slight yellowing under sunlight, hardly noticeable in indoor applications. No mechanical properties are affected.

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Use temperature Stable up to 80ºC

APPLICATION GUIDELINES

Recommended combinations

As a multilayer system (2-mm thick)

1. First coat. By roller or rubber spreader, pure EP Multilayer Varnish.
2. Quartz sand spreading
3. Second coat: by metal spreader, EP Multilayer Varnish mixed with quartz sand.
4. Colour quartz chips, spreaded
5. Topcoat. EP Multilayer Varnish, by roller or rubber spreader.

For more advice and specific data of the different application combinations, please refer to Krypton Chemical.

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.

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 10ºC-30ºC. These conditions should be maintained along all the curing time. Application should be done with plenty of air ventilation.

Support preparation

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

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

Approximate

1 kg/m2 applications.

Conditions	*Touch dry (h)*
35ºC, 25%rh	2
23ºC, 50% rh	8
23ºC, 5% rh	9
7ºC, 60ºrh	>20
-15ºC	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)

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Questions

Question	*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 informations

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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