

## Epoxy based coating for the protection of concrete buried surfaces

### DESCRIPTION

Two-component epoxy resin, highly thixotropic, 100% solids, solvent-free and compatible with wet concrete supports (with no standing water).

### APPLICATION

Protective and waterproofing coating for buried concrete surfaces: manholes, elevator pits, septic tanks, sewers, sewage pipes, and other structures, especially if they are buried and do not present significant movements of the support.

### PROPERTIES

- Can be applied over wet concrete surfaces (with no standing water).
- High thixotropy. It can be applied (brush, roller, notched trowel or airless spray) in high thickness, even on vertical surfaces.
- High chemical resistance in continuous contact with water, brine, slightly acidic or alkaline water, urban or industrial wastewater, sewage, leachate.
- Designed to be applied in a single thick coat, without the need of a primer.
- Thermosetting behavior.

### TECHNICAL DATA

#### INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B
<b>Chemical description</b>	Epoxy resin	Polyamine mixture
<b>Physical state</b>	Liquid	Liquid
<b>Packaging</b>	Metal container 11.7 kg	Metal container 3.3 kg
<b>Non-volatile content</b>	Approx. 100%	100%
<b>Flash point</b>	120°C	>100°C
<b>Colour</b>	Grey	Slightly yellow
<b>Density</b>	Tempera- ture (°C) 25 Density (g/cm <sup>3</sup> ) 1,12	Tempera- ture (°C) 25 Density (g/cm <sup>3</sup> ) 1,01
<b>Viscosity</b>	Tempera- ture (°C) 25 Viscosity (mPa.s) 3250	Tempera- ture (°C) 25 Viscosity (mPa.s) 480
<b>VOC</b>	7.5 g/L, 0.5%	0
<b>A/B mixing ratio</b>	A=100, B=28.2 by weight A=100, B=43.2 by volume	
<b>Mixture properties</b>	Density: 1,15 g/cm <sup>3</sup> at 23°C Viscosity: 750 mPa.s at 23°C	
<b>Pot life</b>	22 min (200g, 25°C)	
<b>Storage</b>	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.	
<b>Use before</b>	12 months after manufacturing date.	

#### INFORMATION ON THE FINAL PRODUCT

<b>Final state</b>	Solid membrane
<b>Colour</b>	Grey
<b>Hardness (Shore)</b>	75-80D
<b>Mechanical properties</b>	Maximum elongation: 7,5% Tensile strength: 23 MPa (EN-ISO 527-3)
<b>Solid film density</b>	1,15 g/cm <sup>3</sup>
<b>Adhesion strength</b>	Surface Wet Concrete Adhesion strength (MPa) >2.5
<b>Use temperature</b>	Up to 80°C

### Chemical resistance

Superficial contact, 24 hours, 25°C (5=ok, 0=not recommended)

Product	Result
Water	5
Saturated brine (NaCl)	5
Chlorinated water (20 ppm)	5
Bleach	4
Bleach, 5%	5
Hydrochloric acid, HCl 1%	5
Hydrochloric acid, HCl 2%	4
Sulphuric Acid H2SO4, 2%	5
Sulphuric Acid H2SO4, 10%	4
Sodium Hydroxide (NaOH, 1%)	5
Xylene	5
Isopropyl alcohol	5

### SUPPORT REQUIREMENTS

In order to achieve a good penetration and bonding, support must be:

1. Flat and levelled (Product is self-levelling)
2. Cohesive (pull off test must show a minimum resistance of 1,5 N/mm<sup>2</sup>).
3. Even and regular surface
4. Free from cracks and fissures. If any, they must be previously repaired.
5. Clean, free of dust, loose particles, oils, organic residues.

### RECOMMENDED ENVIRONMENTAL CONDITIONS

Support temperature should be between 5°C and 40°. At higher temperatures, specific precautionary measures must be taken. Please follow manufacturer advice.

### SUPPORT PREPARATION

Cementitious substrates shall be prepared mechanically using suitable abrasive blast/water jetting cleaning equipment to remove cement laitance and achieve an open textured surface profile suitable for the product thickness.

Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be repaired.

Remove completely all dust and other loose materials from the surface with a brush or a vacuum cleaner.

### MIXING

Stir and homogenise thoroughly component A and B using a low-speed stirrer. The mixture turns to a homogenous clear liquid. Do not mix more material than the amount usable within the pot life window. Mixing with quartz sand is possible for other intended uses.

### APPLICATION

Apply a single thick layer of minimum 2 kg/m<sup>2</sup>. Never apply over surfaces where the Impermax EP coating must be exposed to sunlight and UV radiation.

### CURING TIME

Curing time depends on environmental conditions. At 23°C resin gets cured in about 3 hours.

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### REAPPLICATION

A second coat is possible as soon as the first one is dry to touch, and within the following 24 hours.

### TOOL CLEANING

Use solvent Rayston for both components.

### 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 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 contains still have some material left, do not mix with other product before considering the risk of potentially dangerous reactions. Never mix in volumes larger than 5 litres 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" 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.**