



# MAXEPOX<sup>®</sup>

## CEM

### **EPOXY-CEMENT MORTAR FOR REPAIR, LEVELLING AND PROTECTION OF CONCRETE UP TO 5 mm THICKNESS**

#### **DESCRIPTION**

**MAXEPOX<sup>®</sup> CEM** is a three-component mortar composed of water-based epoxy-modified resin and cements, which has been specially designed for repair, levelling and protection of concrete surfaces, on vertical or horizontal, in layers up to 5 mm thickness.

#### **APPLICATION**

- Resurfacing, levelling and finishing in thin layers of damaged concrete and renders. Filling of honeycombs, holes, gravel pockets, etc.
- Restoration and protection of concrete surfaces exposed to abrasion in wastewater treatment plants, dampers, industrial flooring, etc.
- Protective layer for concrete against aggressive chemical environments.
- Levelling and preparation of dampen substrates prior to the application of epoxy or polyurethane-based top-coatings.

#### **ADVANTAGES**

- Very good adhesion on common cement-based substrates. Primer is not required.
- Acts as a water vapour barrier and a suitable base on dampen substrates prior to the application of epoxy or polyurethane-based coatings.
- High resistance to abrasion and wearing.
- Provides higher chemical resistance than concrete.
- Finishing very similar to concrete colour.
- Very good thixotropy and workability.
- Non-toxic and odourless. Solvent-free and non-flammable.

#### **APPLICATION INSTRUCTIONS**

##### **Preparation of the substrate**

Remove all loose materials and damaged or unsound concrete to expose a structurally resistant substrate. Surface should be clean and free of dirt, grease and any contaminant which could affect the adhesion of the product. Wash the surface with clean water but do not leave free standing water.

##### **Mixing**

**MAXEPOX<sup>®</sup> CEM** is supplied as a three-component pre-weighed set. Component A is poured into the component B. Mix mechanically using a slow speed drill (400-600 rpm) until achieving a homogeneous product in colour and appearance. Then, add component C powder gradually while mixing until a homogeneous and lump-free mortar is achieved. Small quantities of product can also be mixed by hand. Do not mix for prolonged period nor use high-speed mixer, which may heat the mixture or introduce air bubbles. Open time is from 30 to 40 minutes at 20 °C.

##### **Application**

Apply layers of **MAXEPOX<sup>®</sup> CEM** by trowel with a thickness no greater than 5 mm. Holes and voids should be refilled previously. When mortar starts to set, from about 20 to 30 minutes depending on ambient conditions, provide the desired finishing with a wet sponge, trowel or float. Do not overwork; minimize trowelling.

Successive layers should be applied when the previous one is completely set, 24 hours approximately depending on ambient conditions.

##### **Application conditions**

Do not apply if temperature is below 8 °C or if a lower temperature is expected within the following 24 hours. Do not apply on frozen or frosted surfaces.

## Curing

Protect from rain, dew and water the first 24 hours after application. Epoxy or polyurethane-based top-coatings can be applied after a curing time of at least 24 hours at 20 °C (surface moisture must be less than 4 %). Low temperatures with high relative humidity and/or sites with poor ventilation will require longer curing time.

## Cleaning

All tools and equipments must be cleaned with water immediately after use. Cured material can be removed by mechanical methods only.

## CONSUMPTION

The estimated consumption is approximately 1,95 kg/m<sup>2</sup>·mm thickness. This estimative consumption may vary depending on the porosity and texture of the surface. A preliminary test on-site will determine the coverage exactly.

## IMPORTANT INDICATIONS

- Do not add water, solvents or any other non-specified compounds to **MAXEPOX<sup>®</sup> CEM**.
- Do not exceed the maximum application thickness per layer (5 mm).
- Can be affected by a superficial colour change over a long period of time exposed to UV if it is not coated, but it will not influence the mechanical properties.
- For other uses not specified in this Technical Bulletin consult our Technical Department.

## PACKAGING

**MAXEPOX<sup>®</sup> CEM** is supplied in three-components pre-weighed sets of 20 kg and it is available in light grey colour (component A: 0,75 kg, component B: 2,25 kg and component C: 17 kg).

## STORAGE

Twelve months in its original unopened set. It must be stored in a dry, cool and covered place, protected against direct sunlight and frost, with temperatures between 5 - 30 °C. Temperatures below 5 °C lead the crystallisation of the product. Should this happen, it must be heated slowly between 80 - 90 °C while is regularly stirred until achieving its homogeneous and original lump-free conditions.

## SAFETY AND HEALTH

**MAXEPOX<sup>®</sup> CEM** is non-toxic but it is an abrasive compound. When mixing and applying do not work without the protection of rubber gloves and safety goggles. In case of skin contact, wash the affected areas with abundant water and soap. In case of eye contact, rinse immediately and thoroughly with clean water without rubbing and seek medical assistance. For further information, Safety Data Sheet of **MAXEPOX<sup>®</sup> FIX** is available by request.

The final user must do disposal of the product and its empty containers according to official regulations.

## TECHNICAL DATA

Characteristics of the product		
A:B:C component ratio (kg)	0,75:2,25:17	
Maximum size of aggregate (mm)	0,5	
Application and curing conditions		
Density of fresh mortar (g/cm <sup>3</sup> )	1,95	
Density of cured mortar (g/cm <sup>3</sup> )	1,85	
Minimum application temperature (°C)	> 8	
Open time at 20 °C ( aprox. minutes)	30 - 40	
Setting time at 20 °C (hours)	4 - 6	
Curing time between layers at 20 °C (hours)	24	
Curing time for coating at 20 °C (hours)	24	
Full curing time at 20 °C (days)	7	
Characteristics for the cured product		
Mechanical strength (MPa)	Flexural	Compressive
- 7 days	4,5	22,5
- 28 days	8,5	30,5
Adhesion on concrete (MPa)	> 2,5	
Chemical resistance against sewage, salts, oils and greases.	Very good	
Consumption / Thickness		
Approx. consumption (kg/m <sup>2</sup> ·mm)	1,95	
Maximum thickness per layer (mm)	5	

## GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®**, **S.A.** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.



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