MAXEPOX® 3000

EPOXY-BASED SELF-LEVELLING MORTAR WITH HIGH PERFORMANCE FOR FLOORING SYSTEMS CE

DESCRIPTION

MAXEPOX® 3000 is a three-component self-levelling mortar composed of pigmented, solvent-free, epoxy resins, which has been specially designed for levelling, protection and decoration of concrete floors in 2-3 mm thick layers.
MAXEPOX® 3000 allows leveling concrete surfaces with a minimum thickness application, providing a flooring system with decorative finish and very high mechanical, chemical and abrasion resistance.

APPLICATION FIELDS

- Continuous self-levelling system with high mechanical and chemical properties on concrete floors for pharmaceutical and chemical industry, laboratories, hospitals, etc.
- High performance epoxy coating with excellent decorative finishing for malls, shopping centres, leisure centres, conference rooms, office buildings, exhibition halls, etc.
- Flooring systems at garages, warehouses, sport centres, processing areas, truck docks, loading areas, mechanical room, maintenance areas, etc.

ADVANTAGES

- Its self-levelling behaviour allows an easy application and excellent performance.
- High abrasion and wearing resistance.
- Very good chemical resistance against a wide range of chemical compounds: oils and greases, petrol, acid and alkali solutions, solvents, salts, etc.
- Excellent adhesion on concrete and cement mortar substrates.
- Provides a continuous, seamless, uniform and compact surface, with an anti-dust finishing. Easy to clean and maintenance.
- Self-sealing finish, it does not need finishing with top coatings. Available in different colours.
- Fast curing and putting-into service.
- Environmentally friendly: non-toxic, epoxy-based, non-flammable and solvent-free product. Suitable for poor ventilated areas.

APPLICATION INSTRUCTIONS

Surface preparation
Surface to be coated must be structurally sound, firm, without cement laitance and as uniform as possible, and preferably with a slight roughness, i.e. open textured surface. It must be dry, clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum plasters, organic growth or any other contaminants that may affect to adhesion of the product. Surface moisture content should not exceed 4 %.

Consult our technical note "*Preparation of concrete surfaces for application of epoxy-based coatings"* for further information.

For cleaning and preparing the substrate, preferably in case of the smooth and/or poorly absorbent concrete and cement mortars, provide a mechanical texturing by abrasive disc, dry sand-blasting, scarification or other abrasive method to achieve at least a slightly textured surface, not being desirable aggressive mechanical or chemicals means. Finally, vacuum the dust and loose particles.

Before coating application, all small voids, holes, honeycombs, cavities, once opened must be patched with the ***MAXEPOX® CEM*** epoxy-cement mortar (Technical Bulletin No. 197) or with the ***MAXEPOX® JOINT*** epoxy-based mortar (Technical Bulletin No. 237). Cold joints, tie holes, and static cracks without movement, once opened and routed to a minimum depth of 2 cm, must be repaired with the ***MAXREST®*** (Technical Bulletin No. 2) structural repair mortar to provide an even surface.

Rebars and other metal elements exposed during the substrate preparation should be cleaned and passivated with ***MAXREST® PASSIVE*** (Technical

Bulletin No. 12), while non-structural and surface iron elements must be cut to a depth of at least 2 cm and then covered with a suitable repair mortar. Expansion joints and fissures/cracks subject to movements, once opened must be sealed with any suitable sealant of ***MAXFLEX***® range.

Concrete and cement mortar:
For cleaning and preparing the substrate, preferably in case of the smooth and/or poorly absorbent concrete and cement mortars, provide a mechanical texturing by abrasive disc, dry sand-blasting, scarification or other abrasive method to achieve at least a slightly textured surface, not being desirable aggressive mechanical or chemicals means. Finally, vacuum the dust and loose particles.

Mixing
MAXEPOX® ***3000*** is supplied as a pre-weighed three-component set.

Premix the components separately, and then the hardener, component B, is poured into the resin, component A. In order to ensure the proper reaction of the two components make sure all of component B is added.

Mixing manually or preferably using a low speed drill (300-400 rpm. maximum), fitted with a mixer suitable for liquids for about 2-3 minutes until achieving a homogeneous product in colour and appearance. Then add the aggregate (Component C) and continue mixing until a complete homogeneity in colour and appearance is achieved.

Do not mix for prolonged period nor use high-speed mixer, which may heat the mixture or introduce air bubbles.

Check Technical Data Table for product pot life (60 minutes at 20° C). This value increases with lower temperatures or small quantities of mixture, and reduces with higher temperatures.

Application

Priming:
On porous surfaces, apply the ***MAXPRIMER*** solvent-based epoxy primer (Technical Bulletin No. 45) with a recommended consumption from 0,20 to 0,30 kg g/m^2 by roller or brush. Placing of the ***MAXEPOX***® ***3000*** mortar should be carried out after 30 minutes from the application of the primer, i.e., once solvent has evaporated and priming is still tacky. It can also be placed until following day, but never later than 24 hours. When a solvent-free epoxy primer is required, apply ***MAXEPOX***® ***PRIMER*** (Technical Bulletin No. 174) with a consumption from 0,25 to 0,30 kg/m^2 by brush or roller, and allow it to dry from 14 to 16 hours but no later than 24 hours.

In case that substrate may have residual humidity, apply one coat of the ***MAXEPOX***® ***PRIMER –W*** water-based epoxy primer (Technical Bulletin No. 372) with an estimated consumption from 0,25 to 0,30 kg/m^2, depending on substrate porosity. Allow this coating to dry completely before applying ***MAXEPOX***® ***3000,*** i.e., about 12 -24 hours, depending on temperature, relative humidity and ventilation conditions.

Standard application:
Before the primer becomes tack-free, apply ***MAXEPOX***® ***3000*** on the primed surface with a thickness from 2,0 to 3,0 mm, using a toothed trowel. Before material begins to set, from 15-20 min, use a spiked roller to obtain an optimum finish and remove any air bubbles on surface.

For ramps or areas with steep slopes, ***DRIZORO***® can supply a thixotropic admixture in order to avoid the slump of ***MAXEPOX***® ***3000*** under these conditions.

Application conditions
Do not apply in rain or when rain, contact with water, condensation, dampness and dew is expected within the first 24 h after the application. Optimum application temperature range is from 10 ºC to 30 ºC. Do not apply with substrate and/or ambient temperature is at or below 10 °C, or when are expected to fall bellow 10 °C within 24 h after application. Do not apply to frozen or frost-covered surfaces.

Ambient and surface temperature must be at least 3 ºC higher than dew point. Do not apply with R.H. higher than 80 %. Measure the relative humidity and dew point before applying the product.

With low temperatures, high humidity levels or both, use dry and warm air in order to get the suitable conditions, such as with an electric powered air blower system.

Temperatures above 30 ºC lead a quick-setting between components and heat production, so the pot life is greatly reduced.

Curing
Allow ***MAXEPOX***® ***3000*** to cure for at least 3 days at 20 °C and 50% R.H. before putting into service to heavy traffic. Applications at lower temperatures, high humidity and/or poor ventilation conditions require longer drying and curing times.

Cleaning
All mixing and application tools, and equipment must be cleaned immediately with ***MAXEPOX***® ***SOLVENT*** after use. Once product cures, this can only be removed by mechanical means.

CONSUMPTION

Estimated consumption for ***MAXEPOX® 3000*** is 1,7 kg/m^2·mm, with a thickness from 2,0 mm to 3,0 mm.

This figure is for guidance only and may vary depending on porosity, texture and conditions for substrate, and application method. Perform a preliminary test on-site to ascertain the total consumption exactly under jobsite conditions.

IMPORTANT INDICATIONS

- For interior use only. Under sun light exposure, some colour variations or discolouration can take place.
- Surface moisture content of substrate must not exceed 4%. Do not apply on substrates subject to rising humidity or negative water pressure.
- Avoid contact with water, damp, dew, condensation, etc for at least 24 hours after application. Relative humidity must not exceed 85%. If so, an improper curing or loss of colour intensity may happen.
- Allow new concrete and mortar to cure a minimum of 28 days before application.
- Aggregate (Component C) must be thoroughly dry before mixing with resin components (A+B).
- Use the recommended mixing ratios for all components.
- Do not add cements, solvents, thinners, admixtures, or other compounds.
- Observe the recommended thickness and consumptions per application.
- For other uses not specified in this Technical Bulletin, further information or questions regarding the application of the product, consult the Technical Department.

PACKAGING

MAXEPOX® 3000 is supplied in pre-weighed three-component sets of 30 kg: Component A in 6,8 kg plastic containers, Component B in 3,2 kg plastic containers, and Component C in 20 kg bags. Upon special request, resin components (A and B) can be supplied in bulk of 200 kg drums, and aggregate (Component C) can be supplied in 25 kg bag.

It is available in 3 different standard colours: green, red and grey. Other colours are available upon special request.

STORAGE

Twelve months in its unopened and undamaged original sealed packaging. Store in a cool, dry and covered place, protected from moisture, frost and away from direct exposure to sunlight, with temperatures between 5 ºC and 30 ºC.

Storage at temperatures bellow 5 °C may lead the crystallisation of product components. Should this happen, it must be heated slowly at moderate temperature while it is regularly stirred until achieving its homogeneous and original lump-free appearance.

Component C can be stored indefinitely in its original unopened packaging, in a dry and covered place protected from humidity, frost and direct sun light, with temperatures above 5 °C.

SAFETY AND HEALTH

MAXEPOX® 3000 is not a toxic product but direct contact with skin and eyes must be avoided. Use rubber gloves and safety goggles when handling, mixing and applying the product. In case of contact with skin, wash affected area with soap and water. In case of contact with eyes, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for ***MAXEPOX® 3000***.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

TECHNICAL DATA

Product characteristics	
CE Marking, UNE-EN 13813 Description: Synthetic resin screed. EN 13813 SR-B2,0-AR0,5-IR10,79 Uses: Wearing surface for indoor applications in construction	
General appearance and colour for component A	Coloured, homogeneous paste
General appearance and colour for component B	Translucent-yellowish liquid
A:B:C mixing ratio for self-levelling mortar, (by weight)	6,8:3,2:20
(A+B):C mixing ratio, (by weight)	1:2
A+B+C solid content, (%, by weight)	100
Density for self-levelling mortar / dry mortar, (g/cm^3)	1,70 ± 0,1
Flash point	Non-flammable
Application and curing conditions	
Application conditions, T(ºC) / R.H., (%)	10-30 / < 85
Pot life at 10 ºC/ 20 ºC/ 30 ºC, (min)	100 / 60 / 30
Drying-time to touch 10 ºC/ 20 ºC/ 30 ºC, (hours)	24 / 14 / 7
Curing time at 20 ºC (days) - Pedestrian traffic - Light traffic - Heavy road traffic	 1 3 4
cured self-levelling mortar characteristics	
Flexural strength at 28 days, EN 13892-2 (MPa)	27,5
Compressive strength at 28 days, EN 13892-2 (MPa)	75,0
Elastic modulus, (MPa)	6.200
Coefficient of linear expansion, (1/ ºC)	$56 \cdot 10^{-6}$
Wear resistance BCA, EN 13892-4 (µm)	10 – AR 0,5
Impact resistance, EN ISO 6272 (N·m)	IR 10,79
Adhesion on concrete at 28 days, EN 13892-8 (MPa)	> 3 (breaks concrete)
Thickness / Consumption*	
Thickness per layer, (mm) Consumption per layer, ($kg/m^2 \cdot mm$)	2,0-3,0 1,70

* This figure is for guidance only and may vary depending on porosity, texture and conditions for substrate, and application method. Perform a preliminary test on-site to ascertain the total consumption exactly under jobsite conditions.

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.U.*** 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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