



MAXEPOX[®]

FLOOR-M

MULTI-PORPOSE EPOXY RESIN FOR PRIMING, COATING AND MORTARS ON CONCRETE FLOORS

DESCRIPTION

MAXEPOX[®] FLOOR-M is a two-component, 100 % solids, solvent-free, transparent, multi-porpose epoxy binder specifically designed as adhesion primer, dry mortars and multi-layered flooring systems.

MAXEPOX[®] FLOOR-M allows level the floor and provides a high performance decorative flooring, resistant to chemical attack and high abrasion.

APPLICATION FIELDS

- Primer on porous surfaces before applying epoxy solvent-free systems as **MAXEPOX[®] FLEX**, **MAXEPOX[®] FLOOR**, **MAXEPOX[®] MORTER** and **MAXEPOX[®] 3000**.
- Finishing of pavements for chemical, pharmaceutical and other industrial facilities where surfaces with high chemical resistance and abrasion are required.
- Protective and decorative coating for industrial flooring, loading and unloading areas, warehouses and parking lots.
- Anti-slip broadcast multi-layered system with natural quartz or coloured aggregate.
- Dry mortar flooring with decorative finish in shopping malls, supermarkets, hospitals, convention centres, halls, etc.
- Mixing of mortars for coving in continuous resin flooring.
- Repair of joints in pavements, hydraulic works, and other structures that require high resistance to wear.
- Sealing of epoxy mortars in anti-dust flooring.

ADVANTAGES

- Low viscosity, which provides excellent penetration in concrete or cement surfaces.
- Suitable for applications in continuous flooring with thickness from 4 to 15 mm, depending on the granulometry of aggregates used.
- High mechanical strength, providing excellent resistance to abrasion and wear.

- Very good chemical resistance to alkalis, dilute acids and bases, saline solutions, wastewater, and organic and mineral oils.
- Allows a high aggregate:binder mixing ratio leading significant savings in dry mortar applications.
- Solvent free, 100% solids, non-flammable. Suitable for poor ventilation areas.
- No topcoat is required.
- Ease of cleaning

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. Surface moisture content should not exceed 4 %. No rising damp. Do not apply on substrates subject to rising damp or negative water pressure.

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

Static cracks without movement, once opened and routed to a minimum depth of 2 cm, must be repaired with **MAXREST[®]** (Technical Bulletin No. 2). Rebars and other metal element 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 **MAXREST[®]**. Expansion joints and fissures/cracks subject to movements, once opened must be sealed with a suitable sealant of **MAXFLEX[®]** range.

Concrete and cement mortars: 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® FLOOR-M binder system is supplied as a pre-weighed two-component set.

Premix the components separately, and then the hardener, component B, is poured into the resin, component A. 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. 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 (30 minutes at 20° C). This pot-life is greatly reduced with higher temperatures.

Trowelable epoxy mortar. For the preparation of dry mortar, once well mixed components A and B, it is recommended to empty the resulting binder into a clean container and slowly add the siliceous aggregates, mixing until smooth again. Avoid excessive mixing time to heat the mix.

Binder:aggregate mixing ratio can vary from 1:5 to 1:6. Silica aggregate must be dry, clean, free of dust, fine fillers and clay. Size should be approximately from about 0,2 to 0,8 mm with an uniform distribution in size as possible to increase the compacity of the mortar. **DRIZORO®** supplies this aggregate in different grain size (**DRIZORO® SILICA**), natural colours (**DRIZORO® SILICA DECOR**), and also rounded shape and coloured (**MAXEPOX® COLOR**).

Application

Trowelable epoxy mortar:

Apply a priming coat, components A and B, with an average consumption from 0,25 to 0,30 kg/m², depending on the porosity of the substrate. Observe the specified drying times for primer before mortar laying.

On properly primed surface, spread dry epoxy mortar with a trowel with a thickness from 10 % to 15 % higher than necessary and proceed to compact and smooth by mechanically or manually means.

To improve watertight and anti-dust behavior for mortar, apply a sealing pure coat of **MAXEPOX® FLOOR -M** with consumption of 0,20-0,25 kg/m², depending on porosity.

Anti-slip broadcast multilayer system:

Apply a priming coat, components A and B, with an average consumption from 0,25 to 0,30 kg/m², depending on the porosity of the substrate.

If substrate may have residual humidity, apply one coat of the water-based epoxy primer **MAXEPOX® PRIMER -W** (Technical Bulletin No. 327) with an estimated consumption of 0,20 - 0,30 kg/m² per coat, depending on substrate porosity. Allow this coating to dry completely before applying

MAXEPOX® FLOOR-M, i.e., about 12-24 hours, depending on temperature, relative humidity and ventilation conditions. Observe specific drying times for each primer before the laying of epoxy flooring.

Once primer becomes tack-free, apply a first pure coat of **MAXEPOX® FLOOR-M** (components A+B) by brush, short-piled roller or air-less spray equipment with an estimated consumption of 0,50-0,60 kg/m², and while it is still fresh, broadcast the selected **DRIZORO® SILICA**, depending on roughness desired, or **DRIZORO SILICA DECOR/MAXEPOX® COLOR** when decorative finish is desired, with an estimated coverage of 1,0-1,5 kg/m². Once it is dry, i.e., after 24 hours, sand lightly, sweep and vacuum surface to remove unbounded aggregate. Depending on the thickness required, applying successive layers of resin and dry aggregate, to achieve this total thickness. Finally, apply **MAXEPOX® FLOOR-M** (components A+B) as topcoat with an estimated consumption of 0,20 to 0,25 kg/m².

Application conditions

Do not apply if rain, contact with water, condensation, dampness and dew is expected within the first 72 h after application.

The optimum working temperature range is from 10 °C to 30 °C. Do not apply with substrate and/or ambient temperature is at or below 10 °C, or when are expected to fall below 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 °C higher than dew point. Do not apply with R.H. lower than 30 % or higher than 80 %. Check relative humidity and dew point before application. With low temperatures, higher 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. Consequently, and for the evaporation of water contained in the product, if hot air is used, it must come from a dry source (electricity). The hot air from the combustion of gas or oil produces a large amount of moisture that makes it difficult to drying of the coating.

Curing

Allow **MAXEPOX® FLOOR-M** to cure 3 days for full service, at 20 °C and 50% R.H. Applications at lower temperatures, high humidity and/or poor ventilation conditions require longer curing time.

Cleaning

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

CONSUMPTION

Priming: Estimated consumption for **MAXEPOX® FLOOR-M** as primer varies from 0,25 to 0,30 kg/m² per coat.

Trowelable dry mortar: Estimated consumption for **MAXEPOX® FLOOR-M** as dry mortar varies from 2,0 to 2,1 kg/m²-mm of mortar (0,3-0,4 kg/m²-mm of **MAXEPOX® FLOOR-M** (A+B) and 1,7-1,8 kg/m²-mm of **DRIZORO® SILICA**, **DRIZORO® SILICA DÉCOR** or **MAXEPOX COLOR** depending on binder:aggregate mixing ratio).

Top-coating: Estimated consumption for **MAXEPOX® FLOOR-M** varies from 0,20 to 0,25 kg/m² per coat, depending on porosity substrate.

Anti-slip broadcast multilayer system: Estimated consumption for **MAXEPOX® FLOOR-M** (A+B) varies from 0,5 to 0,6 kg/m² per coat (a total consumption from 1,0-1,2 kg/m²) and about 1,0-1,5 kg/m² for **DRIZORO® SILICA** or **MAXEPOX® COLOR**.

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

IMPORTANT INDICATIONS

- For exterior use, apply **MAXURETHANE® 2C** as UV protective top coating.
- Do not apply on substrates subject to rising humidity or negative water pressure. Surface moisture content of substrate must not exceed 5 %. Allow substrate to dry enough after rain, water contact, damp, dew, condensation, etc, as well as after washing surface.
- Allow new concrete and mortar to cure a minimum of 28 days before application.
- Avoid contact with water, damp, dew, condensation, etc for at least 72 hours after application. Relative humidity must not exceed 85%. In this case, it can lead to poor curing and/or loss of colour intensity.
- Do not add solvents or modify the recommended mixing ratio, as it can be lead alterations in curing process or even inhibiting it. Do not add additives or compounds other than those specified.
- Aggregate must be thoroughly dry before mixing with resin components A+B.

- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXEPOX® FLOOR is supplied in pre-weighed two-component set of 300 kg (100 kg drums). Other packagings are available upon special request.

For packaging of **DRIZORO® SILICA**, **DRIZORO® SILICA DECOR** and **MAXEPOX® DECOR** consult the Technical Bulletins Nos. 308, 417, and 223, respectively.

STORAGE

Twelve months in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, frost and direct sunlight, with temperatures between 5 °C and 35 °C.

Storage at temperatures below 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.

SAFETY AND HEALTH

MAXEPOX® FLOOR-M is not a toxic product but direct contact with skin and eyes must be avoided. Use rubber gloves and safety goggles during application. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance. If ingested, seek immediate medical assistance. Do not induce vomiting. Do not inhale vapors from heating and combustions process. Observe the usual precautions necessary for the use and applications of this type of products.

Consult the Material Safety Data Sheet for **MAXEPOX® FLOOR-M**.

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	
General appearance and colour for component A	Transparent liquid
General appearance and colour for component B	Translucent-yellowish liquid
A:B mixing ratio, (by weight)	2:1
A+B:Aggregate mixing ratio for dry mortar, (by weight)	1:5 – 1:6
A+B+C solid content, (% by weight)	100
A+B density, (g/cm ³)	1,10
Density for dry mortar, (g/cm ³)	2,0 ± 0,1
Flash point	Non-flammable
Application and curing conditions	
Application conditions, T (°C) / R.H. (%)	10 – 30 / < 85
Pot life for A+B mix at 10 °C/ 20 °C/ 30 °C, (min)	120 / 80 / 40
Drying-time to touch at 20 °C, (hours)	24 / 18 / 8
Waiting time between coats at 20 °C, (hours)	6-24
Curing time at 20 °C, (days)	
- Pedestrian traffic	1
- Light traffic	3
- Heavy road traffic	4
Cured fluid mortar characteristics	
Adhesion, (MPa)	> 3,0)
Thickness / Consumption*	
Primer	
- Consumption per coat, (kg/m ²)	0,25 – 0,3
Anti-slip broadcast multilayer system	
- Recommended thickness, (mm)	1,0-2,0
- Consumption of resin / aggregate, (kg/m ²)	0,5-0,6 / 1,0-1,5
Trowelable epoxy mortar	
- Consumption per application, (kg/m ² ·mm)	2,0 – 2,1

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

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.



DRIZORO, S.A.U.

C/ Primavera 50-52 Parque Industrial Las Monjas
28850 TORREJON DE ARDOZ – MADRID (SPAIN)
Tel. 91 676 66 76 - 91 677 61 75 Fax. 91 675 78 13
e-mail: info@drizoro.com Web site: drizoro.com

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