



MAXEPOX[®]

MORTER

EPOXY-BASED SYSTEM FOR PREPARATION OF PAVEMENT MORTAR AND TEXTURED COATINGS

DESCRIPTION

MAXEPOX[®] MORTER is a two-component formula composed of pigmented, 100% solid –solvent free- and epoxy-modified resins, which has been specially designed for preparation of a suitable material as pavement mortar and textured coatings for concrete surfaces.

MAXEPOX[®] MORTER allows to level out concrete surfaces, providing a flooring system with decorative finish, high chemical resistance and very good abrasion resistance.

APPLICATION FIELDS

- Flooring systems for chemical and pharmaceutical industry and other industrial facilities wherein a surface with a very high chemical resistance is required.
- Protective and decorative coatings for industrial floors, truck docks and warehouses.
- Multi-layered systems and anti-slip top coatings applied by dry shake method.
- Flooring systems in big thickness with decorative finish for garages, hospitals, shopping centres, conference rooms, etc.

ADVANTAGES

- Suitable for applications with thickness of 4 to 5 mm.
- High mechanical strengths, providing an excellent abrasion resistance.
- Good chemical resistance.
- Solvent-free, 100% solids and non-flammable. Suitable to use in poor ventilated areas.
- Easy to clean.

- No top coating is required. Available in different colours.

APPLICATION INSTRUCTIONS

Surface preparation

Surface must be structurally sound and clean, free of dust, coatings, efflorescences, oil, grease, gypsum or any foreign material that could affect to adhesion. Substrate should be with slight roughness. Moisture content of the surface must be below 4 %.

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

Mixing

MAXEPOX[®] MORTER is supplied as a pre-weighed two-component set, to which the suitable aggregates should be added. The hardener, component B, is poured into the resin, component A. In order to ensure the proper reaction between both components, make sure that all of component B is added. Mix mechanically using a slow speed drill (300 –600 rpm) until achieving a homogeneous product in colour and appearance. 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. Once well mixed, it is advisable to pour the binder (A+B) into a clean container and then add the siliceous aggregates and continue the mixing until a complete homogeneity in colour and appearance is achieved.

The 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®** can supply the appropriate high quality aggregates already pre-weighed.

Check the technical data table for the pot-life or time it takes the product to harden inside the container. The pot-life for 10 kg at 20 °C is 80 minutes, increasing with lower temperatures or small quantities of mixture and reducing with higher temperatures.

Application

Priming: On porous surfaces, apply solvent-free epoxy primer **MAXEPOX® PRIMER** (Technical Bulletin No. 174) with a consumption from 0,25 - 0,30 kg/m² by brush or roller, and allow it to dry from 14 to 16 hours but no later than 24 hours. 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**, i.e., about 12-24 hours, depending on temperature, relative humidity and ventilation conditions.

Placing of MAXEPOX® MORTER as mortar screed or epoxy-based mortar: Apply the mortar on the primed surface with a thickness from 4 to 5 mm, using a levelling boards and guide rails so that a recommended consumption of 10,5 kg/ m² for a 5 mm thickness is achieved. Finally, compact and smoothen the surface with a trowel.

On ramps or areas with steep slopes, **MAXEPOX® MORTER** slumps due to its fluidity and self-levelling capacity. **DRIZORO®** can supply a thixotropic version to allow placement under these conditions.

In order to improve the waterproofing of the pavement and its anti-dusting performance, it is advisable to finish the job by applying a seal coat. This seal coat can be carried out using **MAXPRIMER**, the epoxy components for **MAXEPOX® MORTER** itself, or with a specific **MAXEPOX® -PS** (Technical Bulletin N° 77).

Coverage will depend on the execution of the mortar, but it can be estimated from 0,1 to 0,2 kg/m² of seal coat product.

Placing of MAXEPOX® MORTER as multilayered coating by dry shake method:

This solution provides a coating with a few millimetres thick which is very easy to apply.

Apply **MAXPRIMER** as a primer, then a thick layer of the epoxy components of **MAXEPOX® MORTER** is applied, without the addition of aggregates, at an approximate coverage of 0,5 kg/m². Immediately and while the layer is still fresh, the aggregates are sprinkled on, until the surface is fully covered.

After 24 hours, any aggregates not bonded to the resin are removed by sweeping. Later the surface is sanded mechanically and the entire surface is vacuumed. Apply another seal coat of the epoxy components of **MAXEPOX® MORTER**, using a roller with an approximate coverage of 0,5 kg/m².

Application conditions

In order to get a suitable reaction between all components, the minimum substrate temperature should not be less than 10 °C and the relative air humidity must less than 80 %. Surface and air temperature must be at least 3 °C higher than dew temperature during the application and curing process. For low temperatures, high humidity levels, or both, dry and hot air, i.e. air form an electric powered air blower system, must be used to get a suitable application conditions.

Curing

Allow a curing time of 3 days at 20 °C and 50% R.H. for total curing and before putting into service. Applications carried out at lower temperatures, with high humidity or with poor ventilation will require longer drying and curing times.

Cleaning

Tools and equipments can be cleaned with **MAXEPOX® SOLVENT** immediately after use. Once the product hardens, it can only be removed by mechanical methods.

CONSUMPTION

The estimated consumption for **MAXEPOX® MORTER** as epoxy-based mortar is 2,1 kg/m²·mm thickness. As epoxy-based coating, estimated consumption for **MAXEPOX® MORTER** is 0,5 kg/m²·mm thickness. These figures may vary depending on the roughness and surface conditions. A preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS

- For interior use only.
- Moisture content of the surface must not exceed 4%.
- Do not apply on substrates subjected to rising humidity or where moisture can reach the underside of the epoxy-based flooring system.
- Do not add cements, solvents or any other compounds to **MAXEPOX® MORTER**.
- Keep the epoxy-based resin/aggregates ratio.
- Avoid water condensation, damp, contact with water or both, for at least 72 hours after application of epoxy system.
- Before applying **MAXEPOX® MORTER** on new concrete, observe a curing time of at least 28 days.
- Do not exceed the maximum recommended thickness per application (4-5 mm).
- For further information and other uses not specified in this Technical Bulletin, consult our Technical Department.

PACKAGING

MAXEPOX® MORTER is supplied in three-components pre-weighed sets of 10 and kg. Upon request, epoxy-based materials and quality aggregates with a suitable grain size for the epoxy-based mortar can be supplied in bulk, 200 kg drums and bags, respectively.

It is available in transparent version, red, green and grey colour and other colours available by request.

STORAGE

Twelve months in its original unopened containers in a dry and covered place, with temperatures between 5 °C and 30 °C. Protect against direct sunlight and frost.

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 a homogeneous and lump-free mix.

SAFETY AND HEALTH

When mixing and applying **MAXEPOX® MORTER**, do not work without the protection of rubber gloves and safety goggles. Do not inhale vapors from heating and combustions process. If the product comes in contact with the eyes, rinse immediately with clean water without rubbing and seek medical assistance. In case of skin contact, wash with abundant water and soap. If ingested, seek immediate medical assistance. Do not induce vomiting.

Observe the usual precautions necessary for the use and applications of this type of products.

For further information, Safety Data Sheet for **MAXEPOX® MORTER** is available by request.

The final user is responsible for the disposal of the product and its empty packaging according to official regulations.

TECHNICAL DATA

Product characteristics	
CE Marking, UNE-EN 13813	
Description: Synthetic resin screed. EN 13813 SR-B2,0-AR0,5-IR14,7	
Uses: Wearing surface for indoor applications in construction	
General appearance and colour for component A	Coloured/Transparent, homogeneous liquid
General appearance and colour for component B	Translucent-yellowish liquid
A:B mixing ratio, (by weight)	6,8:3,2
(A+B):C mixing ratio for dry mortar, (by weight)	1:5 to 1:6
A+B+C solid content, (% , by weight)	100
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. (%)	8 – 30 / < 85
Pot life 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 trowelable dry mortar characteristics	
Flexural strength for dry mortar with a 1:5 ratio, (MPa)	> 35,0
Compressive strength for dry mortar with a 1:5 ratio, (MPa)	> 75,0
Adhesion on concrete, (MPa)	> 4,40
Elastic modulus, (MPa)	12.500
Coefficient of linear expansion, (1/°C)	20·10 ⁻⁶
Thickness / Consumption*	
Pure coating	
- Consumption per coat / total application, (kg/m ²)	0,20 – 0,25 / 0,4 - 0,5
Anti-slip broadcast multilayer system	
- Total thickness, (mm)	1,0 - 2,0
- Consumption of resin per coat / total application, (kg/m ²)	0,4 - 0,5 / 0,8 - 1,0
- Consumption of DRIZORO SILICA or MAXEPOX COLOUR, (kg/m ²)	1,0 - 1,5
Trowelable dry epoxy mortar	
-Binder: DRIZORO SILICA 0204 or MAXEPOX COLOUR mixing ratio, (weight)	1:5 to 1:6
-Thickness per application, (mm)	4,0 – 15,0
-Consumption per application, (kg/m ² ·mm)	0,25 - 0,30

(*These figures may vary depending on of the roughness and the surface conditions. A preliminary test on-site will determine the coverage 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.



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