



MAXURETHANE[®]

CEM-C

POLYURETHANE-CEMENT MORTAR FOR SEALING CORNERS AND OUTSTANDING POINTS WITH MAXURETHANE[®] CEM SYSTEM

DESCRIPTION

MAXURETHANE[®] CEM-C is a three-component, water-based, polyurethane-cement mortar to be applied by trowel or spatula with thickness from 3 to 20 mm, designed for covering corners and other outstanding points with the system **MAXURETHANE[®] CEM**.

APPLICATION FIELDS

- Industrial pavements in petrochemical, pharmaceutical, food industry, etc., with very high mechanical and chemical requirements.
- Flooring systems subject to thermal shock and cycles by steam cleaning, hot liquid spills, high temperature industrial environments, freeze chambers, etc.
- Very high chemical-resistant floors in industrial facilities against cleaning agents, degreasing surfactants, fats, diluted alkalis and acids, hydrocarbons and other aggressive compounds.

ADVANTAGES

- Higher thermal resistance than epoxy coatings: from - 40 °C up to + 150 °C.
- Allows steam cleaning treatments with thickness above 9 mm.
- High mechanical properties such as compressive strength, abrasion, impact and mechanical cleaning.
- Excellent chemical resistance, higher than epoxy-based systems.
- Allows application on 7 days concrete and on slightly moisture surfaces.

- Applicable in different thickness depending on need and requirement of job-site.
- Environmentally friendly: non-toxic, solvent-free and non-flammable product. Suitable for use in bad ventilated areas.

APPLICATION INSTRUCTIONS

Surface preparation

Surface must be structurally sound, firm, without cement laitance and as uniform as possible, and preferably with a slight roughness, i.e. open textured surface. Minimum bond strength of substrate must be above 1,5 N/mm². It must be clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum plasters, organic growth or any other contaminant. Surface moisture content should not exceed 8 %.

For surface preparation and cleaning, preferably in case of smooth and/or poorly absorbent substrates, use sand blasting or high pressure water cleaning methods, not being desirable aggressive mechanical or chemical means.

Voids, holes, honeycombs, cavities, cold joints, and static cracks without movement or any others defects deeper than 10 mm, once opened and routed must be repaired with patching mortar **MAXROAD[®]** (Technical Bulletin No. 27).

Mixing

MAXURETHANE[®] CEM-C is supplied as a three-component pre-weighed set. Premix liquid components A and B separately, pour them to a clean container and mix until achieving a homogeneous liquid, using a slow speed electric drill (300-400 rpm) fitted with a disc mixer. Then, add gradually component C powder to the liquid and mix as before, for about 2-3 minutes until achieving a smooth, lump-free and homogeneous consistency mortar. Do not mix for prolonged period nor use high-speed mixer, which may heat the mixture or introduce air bubbles. Allow the mortar to rest for 5 minutes to fully wet out all the

powder and then remix again briefly before application. Check Technical Data Table for the pot life of the product (20 minutes at 20° C). This pot life is reduced progressively with higher application temperatures.

Application

On very porous substrates, apply previously **MAXURETHANE® CEM PRIMER** (Technical Bulletin No. 369) with a consumption from 1,5 to 2,0 kg/m² by brush or roller, allowing to dry 24 hours (20° C). Drying time for primer depends on temperature, relative humidity, ventilation and substrate porosity. For this case, surface moisture content should not exceed 5 %.

Place and spread **MAXURETHANE® CEM-C** in a single step by trowel or spatula, with layers from 3 to 20 mm thickness. Before surface begins to set, i.e., about 20 minutes at 20 °C, provide the desired finish.

Expansion joints must not be covered by **MAXURETHANE® CEM-C** and should be sealed with a suitable flexible sealant from **MAXFLEX®** range.

Application conditions

Do not apply when rain, contact with water, condensation, dampness or dew is expected within the first 24 h after application.

The optimum temperature range for application is from 10 °C to 30 °C. Do not apply with substrate and/or ambient temperature is at or below 5°C, or when temperatures are expected to fall below 5 °C within 24 h after application. Do not apply to frozen surfaces.

Ambient and surface temperature must be at least 3 °C higher than dew point. Do not apply with R.H. higher than 85 %. Measure the relative humidity and dew point before applying close to marine environment.

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

Temperatures above 30 °C lead a quick-setting between components and heat production, so the pot life is greatly reduced. Avoid applications in areas exposed directly to sunlight at high temperatures.

Curing

Allow **MAXURETHANE® CEM-C** to cure 12 h for pedestrian traffic and 48 h for heavy traffic, at 20 °C and 50 % R.H. Lower temperature, poor ventilation area and/or higher R.H. increase the curing time.

Cleaning

All tools and equipments must be cleaned immediately with **MAXSOLVENT®** after use. Once product hardens, it can only be removed by mechanical means.

CONSUMPTION

Estimated consumption of **MAXURETHANE® CEM-C** is 1,95 kg/m² per mm thickness.

Consumption may vary depending on porosity, texture, substrate conditions and application method. A preliminary test on-site will determine the total consumption exactly.

IMPORTANT INDICATIONS

- Do not apply over weak or unsound substrates.
- Do not add cements, additives or other compounds.
- Mix mechanically full sets units and do not use leftovers of previous mixes.
- Different mixing ratios, application thickness, surface porosity, curing conditions, etc may produce light differences of colour intensity.
- It can be affected by a superficial colour change over a long period of time exposed to UV rays, but it does not affect the mechanical properties. Use a topcoating with **MAXURETHANE® 2C** (Technical bulletin No 87)
- For other uses not specified in this Technical Bulletin or further information, consult our Technical Department.

PACKAGING

MAXURETHANE® CEM-C is supplied in pre-weight three-component set of 30,92 kg: Component A in 2,71 kg plastic can, Component B in 3,21 kg plastic can and Component C in 25 kg bags. It is available in standard grey, white, red and green colour.

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 from 5 °C to 35 °C.

SAFETY AND HEALTH

MAXURETHANE[®] CEM-C is not a toxic product but is an abrasive compound. Avoid direct contact with skin and eyes, and breathing dust. Use rubber gloves and safety goggles when mixing and applying the product. 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.

Consult the Material Safety Data Sheet for **MAXURETHANE[®] CEM-C**.

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	Grey, white, red or green mortar
Density components A / B / C, (g/cm ³)	0,99 / 1,23 / 1,35 ± 0,10
Density fresh mortar (A+B+C), (g/cm ³)	2,00 ± 0,10
Density for cured and dry product, (g/cm ³)	1,95 ± 0,10
Application and curing conditions	
Minimum application temperature for substrate and ambient, (°C)	> 5
Pot life at 20°C, (min)	20
Initial/Final setting time at 20 °C, (h)	1-2 / 3-4
Total curing time at 20 °C & 50% H.R., (d)	
- Pedestrian traffic	12
- Light-moderate road traffic	24
- Heavy road traffic	48
Cured product characteristics	
Density for cured and dry product, (g/cm ³)	1,95 ± 0,10
Compressive strength at 28 days, EN 13892-2 (N/mm ²)	> 40
Flexural strength at 28 days, EN 13892-2 (N/mm ²)	> 10
Adhesion on concrete at 28 days, EN 13892-8 (N/mm ²)	> 3 (break concrete)
Temperature resistance	
- ≥ 4,0 mm thick	From -15 °C to +60°C
- ≥ 6,0 mm thick	From -25 °C to +70°C
- ≥ 9,0 mm thick	From -40 °C to +120°C
- ≥ 12,0 mm thick	From -40 °C to +130°C (Occasionally up to +150 °C)
Thickness / Consumption*	
Thickness per layer, (mm)	3 – 20
Consumption per layer, (kg/m ² per mm thickness)	1,95

* Consumption may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to determine the 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.



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