# MAXURETHANE® -AC

## HIGH CONDUCTIVE, TWO-COMPONENT, WATER-BASED POLYURETHANE PROTECTIVE COATING

### DESCRIPTION

***MAXURETHANE® -AC*** is a two-component, water-based, aliphatic resin with conductive particles which provides a protective and good abrasion resistance conductive coating.
It is highly resistant to weathering and UV-rays, with long-term color stability and durability, suitable for indoor or outdoor uses.

### APPLICATION FIELDS

- Flooring system with high conductivity suitable for operating rooms, clean rooms or facilities for electronic industry, etc subject to pedestrian traffic.
- Areas where, besides pavement conductivity, cleanliness and other industrial requirements are mandatory.

### ADVANTAGES

- Conductive coating with high resistance to abrasion to frequent pedestrian traffic.
- Suitable for vertical and horizontal applications.
- Long lasting. Withstands a wide temperature range and weathering.
- Resistant to UV rays, providing durability and long-term color stability.
- Bright finish, and easy to clean.
- Water-based product, solvent-free and non-flammable. Suitable for applications with bad ventilation.

### APPLICATION INSTRUCTION

**Surface preparation**
The conductive system is composed of the ***MAXEPOX® FLOOR –M*** or ***MAXEPOX® PRIMER –W*** primer applied with a recommended consumption of 0,25 kg/m$^2$ by roller or brush, taking care to avoid excess build or puddling. Once primer has dried (12 to 24 hours depending on the ambient temperature and humidity), the self-adhesive copper bands are placed following a pattern ensuring that the maximum distance between conductors is not greater than 3 meters (3x3 m). Finally, the copper bands are connected to an already installed earth electrode.

Next, the ***MAXEPOX® PRIMER -AC*** graphite-based conductive epoxy primer is applied with a consumption of 0,10-0,12 kg/m$^2$, taking care to avoid excess build or puddling, on the previously and properly primed concrete surface with the copper bands connected to the earth electrodes. Allow the drying for the ***MAXEPOX® PRIMER -AC*** conductive primer, then proceed with the, ***MAXURETHANE® -AC*** high conductive polyurethane-based coating.

**Mixing**
***MAXURETHANE® -AC*** is supplied as a pre-weighed two-component set. Premix the components separately, and then make sure to pour all the hardener, Component B, into the resin, Component A.

Mix manually or preferably using a low-speed drill (200-400 rpm), 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 the Technical Data table for product Pot Life. This value is greatly reduced with hot temperatures

**Application**
Once ***MAXEPOX® PRIMER -AC*** dry, apply two pure coats of ***MAXURETHANE® -AC*** with a consumption of 0,20 kg/m$^2$ per coat, i.e. 0,4 kg/m$^2$ per total application, allowing a drying time of 90 minutes between coats, depending on temperature.

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**Application conditions**
Do not apply when rain, water contact, condensation or dew is expected within 24 h after application. 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. higher than 90 %. Check relative humidity and dew point before applying in proximities of marine environment. Applications above 30°C may have problems of over-reactivity and heat release, as well as a greatly reduced shelf life of the mixture.

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 ***MAXURETHANE® -AC*** to cure for at least 1 day for pedestrian traffic, and 3 days at 20 °C and 50% R.H. for total curing. Applications at lower temperatures and/or high humidity require longer drying and curing times.

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

## CONSUMPTION

Estimated consumption of ***MAXURETHANE® -AC*** is 0,20 kg/m$^2$ per coat, 0,40 kg/m$^2$ total.

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

- Do not apply on substrates subject to rising damp or negative water pressure. Allow substrate to dry enough after rain, water contact, damp, dew, condensation, etc, as well as after washing surface.
- Allow new concrete and cement mortars to cure 28 days before coating.
- Do not add solvents, thinners or other non-specified compounds.
- Observe the recommended consumptions per coat.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

## PACKAGING

***MAXURETHANE® -AC*** is supplied in pre-weighed two-component set of 12 kg (11 kg for Component A and 1 kg for Component B). It is available in light grey. Other colours are available upon special request.

## STORAGE

Six months for both components, in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, frost and direct sunlight, with temperature above 5°C.

## SAFETY AND HEALTH

***MAXURETHANE® -AC*** 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 rib. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for ***MAXURETHANE® -AC***.

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.

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## TECHNICAL DATA

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|---|---|
| **Product characteristics** | |
| Density for A+B at 20 ±2°C, (g/cm$^3$) | 1,20 ± 0,1 |
| Mixing ratio, A:B (w:w) | 11:1 |
| **Application and curing conditions** | |
| Minimum/Maximum application temperature/ Relative Humidity (°C / %) | >10 / < 85 |
| Pot life at 20°C and 50% R.H., (min) | 60 |
| Waiting time between coats at 20°C and 50% R.H., (h) | 6-8 |
| Curing time for pedestrian traffic/Total curing at 20°C & 50% R.H., (d) | 1 / 3 |
| **Cured product characteristics** | |
| Abrasion Taber, ASTM D-4060 (mg)<br>- CS10, 1.000 g, 1.000 cycles | <br>17-19 mg |
| Electrical resistance to ground, UNE-EN 61340-4-1, (Ohm) | $5 \cdot 10^5 – 5 \cdot 10^6$ Ω |
| **Consumption*** | |
| Epoxy primer: ***MAXEPOX® FLOOR -M***<br>- Consumption, (kg/m$^2$)<br>Pattern for copper bands<br>Graphite-based conductivity primer: ***MAXEPOX® PRIMER -AC***<br>- Consumption, (kg/m$^2$)<br>Conductivity coating: ***MAXURETHANE® -AC***<br>- Consumption per coat/total application, (kg/m$^2$) | <br>0,25<br>3 x 3 m<br><br>0,10-0,12<br><br>0,2/0,4 |

* 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.

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