



MAXFLOOR® POLY-M

FAST CURING COLD-APPLIED AROMATIC POLYUREA COATING FOR FLOORING

DESCRIPTION

MAXFLOOR® POLY-M is a solvent-free, two-component, cold-applied aromatic polyurea with high mechanical and chemical resistance properties, suitable for the protection and decorative finish of concrete pavements, when a very urgent opening to traffic is required.

MAXFLOOR® POLY-M can be applied as a single top coating for smooth finish. Also allows to be mixed with selected aggregate to obtain either multilayer anti-slippery coatings or a fluid mortar for leveling in small thicknesses.

APPLICATION FIELDS

- Continuous leveling coating with high mechanical, abrasion and chemical resistance properties in parking areas, warehouses, aircraft hangars, workshops, etc.
- Chemical and abrasion protection coatings on concrete floors in food processing areas, pharmaceutical industries, chemical plants and other manufacturing units.
- High performance coating with excellent aesthetic decorative finish in malls, theme parks, offices, hotels, museums, showrooms, etc.
- Multilayer anti-slippery systems with selected aggregate: wet areas, stairs, access ramps, docks, cold storage units, parking slopes, maintenance areas, etc.

ADVANTAGES

- Fast curing: 24 hours pedestrian traffic, and 48 hours wheel traffic.
- Suitable for a temperature range from -30°C to 90°C .
- Excellent chemical resistance against chemical compounds such as oils, greases, diesel, diluted acids and alkalis, etc.
- Very high abrasion resistance to wheel traffic, forklifts, industrial vehicles, etc.
- Provides an anti-dust finish, with very easy cleaning and free-maintenance.
- Environmental friendly solution: Solvent-free, odor-less, suitable for indoor use and poor ventilated areas.

APPLICATION

Substrate preparation

Substrate must be structurally sound, solid, without cement laitance and preferably with a slight roughness, i.e. open

textured surface by sandblasting or scarifying. Minimum tensile strength for the substrate must exceed 1,5 MPa. Patching of defects and voids by square cutting concrete minimum 30 mm depth, can be done with fast-setting floor repair mortar **MAXROAD®**. For small cracks and featheredge repairs use the epoxy fine mortar **MAXEPOX JOINT®**.

Surface must be clean, dry 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. Moisture surface must be below 4%. Consult our technical note "Preparation of concrete surfaces for application of coatings" for further information.

With moisture substrate from 5% to 10%, apply the water-based epoxy primer **MAXEPOX® PRIMER -W** with a consumption of 0,2-0,3 kg/m². Before applying **MAXFLOOR® POLY-M** it is mandatory that **MAXEPOX® PRIMER -W** is tack-free and fully dry, which would take place within 12-24 hours (at 20°C).

Mixing

MAXFLOOR® POLY-M is supplied as a pre-weighed two-component set. Firstly pre-mix the components separately, and then the hardener, component B, is poured into the resin, component A, mixing 2-3 minutes by a low speed drill (300-400 rpm. maximum) fitted with a mixer suitable for liquids, 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 (25-30 minutes at 20°C). This value is greatly reduced with higher temperature application.

If a fluid leveler mortar is required, once components A+B are fully mixed, add the selected aggregate **DRIZORO® SILICA** or **MAXFLOOR® FILLER** with a resin:aggregate mixing ratio of 1:0,7 and mix again.

Application

Smooth sealing top coating:

Apply directly a single coat of **MAXFLOOR® POLY-M** by brush, roller, toothed trowel or squeegee with a consumption of 0,5 a 0,6 kg/m², and immediately use a spiked roller to remove possible air bubbles on surface and easier leveling.

Anti-slip broadcast multilayer system:

Apply a first pure coat of **MAXFLOOR® POLY-M** by brush, roller, toothed trowel or squeegee with a consumption of 0,40 kg/m², and while it is still fresh, broadcast aggregate **DRIZORO® SILICA**, **DRIZORO® SILICA DECOR** or

MAXEPOX® COLOR, depending on roughness desired, with an estimated coverage of 2,0-2,5 kg/m². Once it is dry, sweep and vacuum surface to remove excess of sand, and apply a second pure coat of **MAXFLOOR® POLY-M** as topcoat with an estimated consumption from 0,20 to 0,40 kg/m², depending on aggregate size.

Fluid mortar (1,5-2,0 mm thickness):

Once the primer is tack-free, apply by toothed trowel or squeegee the mixture composed of **MAXFLOOR® POLY-M** and **MAXEPOX® FILLER** in a mixing ratio of 1:0,7, in thickness between 1,5 mm to 2 mm. After spreading the mix, use immediately a spiked roller to remove possible air bubbles on surface and easier leveling.

Application conditions

Application temperature range is from 8°C to 30°C. Do not apply with substrate and/or ambient temperature is at or below 8°C, or when are expected to fall below 8°C within 24 h after application. Temperatures above 30°C lead a quick-drying and heat production, so the pot life is greatly reduced.

Ambient and surface temperature must be at least 3°C higher than dew point. With low temperatures, use dry and warm air in order to get suitable conditions, such as an electric powered air blower system. Do not apply if rain, contact with water, condensation, dampness or dew is expected within the first 4 h after application.

Curing

Allow **MAXFLOOR® POLY-M** to cure at least 15 hours for pedestrian traffic, 48 hours for moderate wheeled traffic, and 7 days for heavy wheeled traffic, 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 **MAXSOLVENT®** after use. Once product cures, this can be removed only by mechanical means.

CONSUMPTION

Smooth sealing top coating: Estimated consumption for **MAXFLOOR® POLY-M** from 0,5-0,6 kg/m² per coat.

Anti-slip broadcast multilayer system: Estimated consumption for **MAXFLOOR® POLY-M** from 0,6-0,8 kg/m² per coat and about 1,5-2,0 kg/m² for aggregates **DRIZORO® SILICA**, **DRIZORO® SILICA DECOR** or **MAXEPOX® COLOR**.

Fluid mortar: Estimated consumption for **MAXFLOOR® POLY** is 1,0 kg/m² per mm thickness and for **MAXFLOOR® FILLER** is 0,7 kg/m² per mm thickness.

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

- Surface moisture content must not exceed 4%. Do not apply on substrates subject to rising damp or negative water pressure. For wet substrates, apply **MAXEPOX® PRIMER -W**.
- Allow new concrete and mortar to cure a minimum of 28 days before application
- Avoid contact with water, damp, dew, condensation, etc., within 3-4 hours after application.
- Do not add solvents, thinners, additives or other non-specified compounds on the mix.
- Observe the recommended mixing ratio for Components A+B.
- Selected aggregate must be thoroughly dry before mixing with resin components A+B.
- Observe any expansion joint, and seal it properly using a suitable elastomeric sealant from **MAXFLEX®** range.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXFLOOR® POLY-M is supplied in a pre-weighed two-component set of 20 kg. It is available in grey, white, red, brick, green and black version. Other colours are available upon special request.

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 30°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. Storage at temperatures above 30°C may lead an increase of viscosity of the liquid components.

HEALTH AND SAFETY

MAXFLOOR® POLY-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 swallowed, seek medical attention immediately, do not induce vomiting. Not inhale vapors produced during heating or combustion. Observe the usual precautions necessary for the application of this type of products.

Consult the Material Safety Data Sheet for **MAXFLOOR® POLY-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 | |
|---|--------------------|
| Appearance and colour for Component A | Pigmented liquid |
| Appearance and colour for Component B | Transparent liquid |
| Density for mixture A+B, (g/cm ³) | 1,25 ± 0,1 |
| Mixing ratio A:B, (w:w) | 19:1,0 |
| Solid content, (%) | 100 |
| Application and curing conditions | |
| Application conditions, T (°C)/R.H. (%) | 8-30 / <85 |
| Open time at 20°C / 30°C, (min) | 25/30 |
| Dry time to touch at 20°C, (h) | 1 |
| Waiting time between coats at 20°C, (h) | 6 |
| Curing time for opening to traffic, 20°C | |
| - Pedestrian traffic, (h) | 15 |
| - Light wheeled traffic, (h) | 18 |
| - Heavy wheeled traffic, (d) | 7 |
| Cured product characteristics | |
| Compressive strength at 1/7/28 days at 20°C, (N/mm ²) | 10 / 50 / 60 |
| Flexural strength, (N/mm ²) | 60 |
| Elongation at break, DIN EN ISO 527 (%) | 80 |
| Tensile strength at break, DIN EN ISO 34 (N/mm ²) | 65 |
| Shore D Hardness, ASTM D 2240 (N/mm ²) | 60-65 |
| Vapour water permeability, EN ISO 12572 (g/m ² ·d) | 8,05 |
| Consumption* | |
| <i>Smooth sealing top coating</i> | |
| - Per coat, (kg/m ²) | 0,5-0,6 |
| <i>Anti-slip broadcast multilayer system:</i> | |
| - Resin consumption, (kg/m ²) | 0,6-0,7 |
| - Aggregate consumption, (kg/m ²) | 2,0-2,5 |
| <i>Fluid mortar:</i> | |
| - Resin consumption, (kg/m ² and mm thickness) | 1,0 |
| - Aggregate consumption, (kg/m ² and mm thickness) | 1,7 |

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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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