



MAXELASTIC® POLY-M



ENVIRONMENTAL PRODUCT DECLARATION

COLD-APPLIED AROMATIC POLYUREA MEMBRANE FOR SINGLE COAT WATERPROOFING

DESCRIPTION

MAXELASTIC® POLY-M is a cold-applied, two-component, aromatic poly-urea membrane suitable for waterproofing and protection of concrete. Once applied manually by brush or roller, it provides a high-performance elastomeric membrane that allows waterproofing works in single coat, and with very fast curing for urgent putting into service (24-48 hours).

MAXELASTIC® POLY -M has the certificate of European Technical Evaluation for use in waterproofing of roofs (ETAG 005).

APPLICATION FIELDS

- One-coat waterproofing and repair of non-exposed roofs, green roofs, terraces and balconies under tiles, etc.
- Fast waterproofing before tiling of indoor wet areas; changing rooms, bathrooms, kitchens, and maintenance rooms.
- Repair jobs and urgent treatment of outstanding points on surfaces previously waterproofed with hot-applied polyurea systems, i.e. **MAXELASTIC® POLY**.
- Waterproofing of bridge decks, retaining walls, foundations, etc.
- Waterproofing of channels, reservoirs, wastewater treatment plants and other water retaining structures, etc.
- Protection and waterproofing on sprayed thermal insulation foams.
- Protective coating on drainage boxes, silos, retaining tanks or areas exposed to spillages and spattering of chemical compounds.

ADVANTAGES

- Waterproofing membrane applied in single coat, with very fast putting into service: 24-48 hours.
- Allows ceramic tiles placement within 24-48 hours.
- Very good elasticity (500 %) at both low and high temperatures. Very good crack bridging capability.
- High tear strength and abrasion resistance. Suitable for pedestrian traffic. Long lasting waterproofing membrane without maintenance.
- Very good chemical resistance to water, seawater, wastewater, fuels, grease and oils, de-icing salts, diluted alkali and acid solutions, etc.

APPLICATION INSTRUCTIONS

Surface preparation

Surface to be coated must be structurally sound, firm, without cement laitance, etc. It must be dry, clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum, organic growth or any other contaminants that may affect to adhesion. Surface moisture content should not exceed 5 %.

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

Concrete and cement-based mortar:

The substrate must be solid and in good condition, with no loose or loose surfaces, surface grout, and as uniform as possible. The concrete tensile strength of the substrate must exceed 1.5 N/mm² (measured by pull-off test). It is recommended to achieve a surface preparation profile between CSP 4 and CSP 6, according to the criteria of the *International Concrete Repair Institute (ICRI)*.

All voids, holes, honeycombs, cavities, cold joints, tie holes, and 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 elements exposed during the substrate preparation 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 or cracks subject to movements once opened up and clean, should be treated with a suitable elastomeric sealant from **MAXFLEX®** range.

Prime and seal the porosity of the concrete substrate with solvent-free epoxy primer **MAXEPOX® PRIMER** (Technical Bulletin No. 174) or water-based epoxy primer **MAXEPOX® PRIMER-W** (Technical Bulletin No. 372) with a coat of 0,2 to 0,3 kg/m² depending on substrate porosity. Very porous substrates may require additional coats to get a perfectly sealed surface and close porosity. Primer must be perfectly dry, between 12-24 hours depending on temperature conditions, before applying **MAXELASTIC® POLY-M**.

Metal surfaces:

Degrease the surface with solvents or surfactants. Prime surface by applying **MAXEPOX® AC** (Technical Bulletin No. 121) or **MAXEPOX® PRIMER -W** with a recommended consumption of 0,25-0,30 kg/m² per coat.

Application

MAXELASTIC® POLY-M is supplied as a pre-weighed two-component set. Premix the components separately, and then pour fully the hardener component B, on the resin component A. Mix mechanically by low-speed drill (300-400 rpm. maximum) fitted with a mixer suitable for liquids, 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. Pot life before application at 20°C is 20 minutes. This time is greatly reduced with higher temperatures.

Apply **MAXELASTIC® POLY-M** with a consumption of 1,0-2,0 kg/m² in a single layer depending on the intended use and irregularities of the substrate, using a short hair roller, brush or even a notched trowel for thick thicknesses. On vertical surfaces to prevent sagging, apply two or three coats with a consumption of 0,3 kg/m² each.

Waiting time between applications is 1-2 hours depending on the ambient temperature.

For outdoor applications, exposed to UV-rays, once **MAXELASTIC® POLY-M** has cured, i.e. 24 hours at 20°C, apply as UV-barrier topcoat, one or two coats of the **MAXELASTIC® POLY-F** aliphatic polyurea coating or the aliphatic polyurethane-based coating such as **MAXELASTIC® PUR-HW**, **MAXELASTIC® PUR-F**, **MAXURETHANE® 2C** or **MAXELASTIC® PUR-EW** depending on type of traffic expected or the slip resistance desired.

Application conditions

Substrate and ambient application temperature is from 5°C to 40°C. Do not apply with substrate and ambient temperature is at or below 5°C, or when such temperatures are expected to fall below 5°C within 24 hours after application. Do not apply to frozen or frost-covered surfaces.

Substrate and ambient temperature must be at least 3°C higher than dew point. Do not apply with R.H. higher than 90 %. Measure the relative humidity and dew point before applying the product for applications carried out in proximities of marine environment.

Curing

Allow a minimum curing time of 48 hours at 20°C and 50 % R.H. before putting into service, performance of flooding tests or covering with tile mortars. Lower temperature or higher R.H. increase the curing time.

CONSUMPTION

Estimated total consumption for horizontal surfaces of **MAXELASTIC® POLY-M** is 1,0-2,0 kg/m², applied in one layer. On vertical surfaces, apply the above figure in several coats, i.e. 0,3 kg/m² per coat.

These figures are for guidance 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 be below 5 %. Allow substrate to dry enough after rain, water contact, damp, dew, condensation, etc., as well as after washing surface.
- Do not apply on substrates subject to negative hydrostatic pressure.
- When applied on concrete surfaces, the tensile strength of the substrate must exceed 1.5 N/mm² (measured by pull-off test).
- Not suitable for spraying means.

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

PACKAGING

MAXELASTIC® POLY-M is supplied in pre-weighed two-component sets of 20 kg (Component A in 19,2 kg drum and component B in 0,8 kg drum) and sets of 5 kg (Component A in 4,8 kg drum and component B in 0,2 kg drum). It is supplied in standard grey color.

STORAGE

Nine months in its unopened and undamaged original sealed 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 above 35°C may lead to an increase of viscosity.

SAFETY AND HEALTH

MAXELASTIC® POLY-M is not a toxic product but direct contact with skin and eyes must be avoided. Use proper clothes, 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.

Consult the Material Safety Data Sheet for **MAXELASTIC® 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	
CE marking. ETA 21/0230 (EAD 030350-00-0402)	
Description and Uses: Liquid applied roof waterproofing kit. Specific stipulations for kits based on polyurea	
Density A+B, (g/cm ³)	1,35 ± 0,1
Solid content, (%)	> 90 %
Application and curing conditions	
Temperature / Relative Humidity for substrate and ambient, (°C / %)	5-35 / < 90
Open time at 20°C, (min)	20-25
Waiting time for drying or between coats at 20°C, (h)	1-2
Curing time of pedestrian traffic at 20°C, (h)	12
Curing time for flooding test or tiling:	
- At 20°C, (h)	48
- At 30°C, (h)	24
Cured product characteristics	
Water vapour diffusion resistant factor, μ	2500
Resistance to wind load, (kPa)	> 50
Resistance to plant roofs	Resistant
Resistance to slipperiness, ENV 12633, Rd	50
Tensile strength at break, EN ISO 527-3, (MPa)	6
Elongation at break, ISO 527, (%)	525
Shore A / Shore D Hardness, EN ISO 868 / ASTM 2240	80 / 35
Class according to EAD 030350-00-0402	
Expected working life	W3 (25 years)
Climatic zone of use	S (Severe)
Use loads	Concrete /Steel: P4:TH2 /// P3:TH4 Foam Polyurethane: P1:TH2 (60°C)
Roof slopes	S1 (< 5 %) to S4 (30 %)
Minimum / Maximum surface temperatures	TL3 (-20°C) / TH4 (90°C) - TH2 (60°C)
External fire performance, EN 13501-5 (support class A1-A2)	Broof (t1). Slope <20° Broof (t4). Slope <10°
Dangerous substances	Does not contain any
Thickness / Consumption*	
Consumption per coat; horizontal / vertical application (kg/m ²)	1,0-2,0 / 0,3

* 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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