



# MAXELASTIC<sup>®</sup> PUR -EW

## UV-RESISTANT, WATER-BASED POLYURETHANE ELASTOMERIC MEMBRANE FOR WATERPROOFING OF ROOFS AND OUTDOOR AREAS

### DESCRIPTION

**MAXELASTIC<sup>®</sup> PUR-EW** is a one-component liquid product, ready to use, based on water-based aliphatic polyurethane resins, which provides a high performance, protective and waterproofing elastomeric membrane, with high resistance to UV radiation, suitable for all type of roofs and outdoor areas with excellent colour stability.

- Excellent adhesion on **MAXELASTIC<sup>®</sup> PUR** range and other polyurethane coatings.
- Ready to use and easy applied manually (brush, roller, etc.) or mechanically by air-less spray equipments. Does not required skilled applicators. Cold applied.
- Environmentally friendly: non-toxic, water-based, non-flammable and solvent-free product.

### APPLICATION FIELDS

- Protection against UV radiation and pedestrian traffic on all type of roofs, both flat and sloped, waterproofed with **MAXELASTIC<sup>®</sup> PUR** and **MAXELASTIC PUR-W**.
- Single waterproofing membrane for all types of roofs and outdoor areas; terraces, balconies, decks, facades, partition or vertical walls.
- Waterproofing membrane for civil works and industrial facilities: bridges, cooling towers, chimneys, etc.
- Waterproofing and protection on tile roof, metal roofs, fiber-cement panels, etc.
- Anti-corrosion protection with aesthetic finish for metal structures under marine environment: platforms, silos, cranes, etc.
- Protection and finish resistant to UV radiation over epoxy or polyurethane-based systems for outdoor applications.

### ADVANTAGES

- Very high elasticity at both high and low temperatures. Accommodates movements of substrate due to settlements as well as vibrations, or thermal movements due to extreme weather conditions.
- Excellent crack-bridging capability, acting as anti-fracture membrane when it is applied on substrate.
- Forms a continuous waterproofing membrane without joints or connections, sealing permanently cracks and fitting to the geometry of the substrate.
- High colour stability, weathering and UV-resistant. It does not turn yellow.

### APPLICATION INSTRUCTIONS

#### Surface preparation

Substrate must be structurally sound, firm, without cement laitance and as uniform as possible, and preferably with a slight roughness, i.e. open textured surface. Surface must be clean and free of efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, organic growth or any other contaminants that may affect to adhesion.

For cleaning and substrate preparation, preferably in case of smooth and/or poorly absorbent substrates, use sand blasting or high pressure water cleaning methods, not being desirable aggressive mechanical means. Maximum surface moisture content must not exceed 10%.

All voids, honeycombs and non-active cracks, once opened and routed to a minimum depth of 2 cm, must be repaired with structural repair mortar **MAXREST<sup>®</sup>** (Technical Bulletin no. 2). Rebars and other metal elements exposed during the concrete preparation should be cleaned and passivated with **MAXREST<sup>®</sup> PASSIVE** (Technical Bulletin no. 12) and then covered **MAXREST<sup>®</sup>**.

Metal surfaces must be cleaned by sandblasting or shotblasting to remove all traces of corrosion or rust, and must be degreased and free of dust.

Expansion joints or cracks subject to movements once opened up and clean, should be treated with a suitable elastomeric sealant from **MAXFLEX<sup>®</sup>** range.

All substrate must be primed with water-based epoxy primer **MAXEPOX<sup>®</sup> PRIMER-W** (Technical Bulletin no. 12) with a consumption of 0,25 a 0,30 kg/m<sup>2</sup> per coat. Allow primer to be perfectly dry to

touch, from 12 - 24 hours depending on weather conditions, before applying **MAXELASTIC® PUR-EW**.

## Application

**MAXELASTIC® PUR-EW** is supplied ready to use. Before application, stir the content of the packaging from 2-3 minutes with a clean tool or preferably by a slow speed electric drill (300-400 rpm) fitted with a disc mixer, until achieving a homogeneous product in colour and appearance. Do not mix for prolonged period nor use high-speed mixer, which may introduce air bubbles.

**MAXELASTIC® PUR-EW** is applied by roller, hard hair brush or spray methods. When using an air-less spray equipment, if needed, dilute with the minimum amount of water that allows its application.

*For use as single waterproofing membrane:* on previously primed surface, apply two crossed coats of **MAXELASTIC® PUR-EW** with a consumption of 0,8 to 1,0 kg/m<sup>2</sup> per coat, allowing a drying-time of 3 - 6 hours between coats depending on weather conditions.

On junctions, non-active cracks other outstanding points, reinforce the first coat placing a 10-20 cm wide strip of glass fiber mesh **DRIZORO® MESH 58**, while it is still fresh and ensuring is completely embedded. Once it is dry, cover the mesh with second coat of **MAXELASTIC® PUR-EW**.

On expansion joints and active cracks subject to movements, once opened up and clean, seal with polyurethane sealant **MAXIFLEX® 100 LM**, and once it has cured completely (4 days at 20 °C and 50% R.H.), proceed as in outstanding points areas.

*For use as UV-barrier and pedestrian traffic protection:* after a minimum drying-time of 12 – 24 hours and perfectly tack-free of previous polyurethane **MAXELASTIC® PUR**, **MAXELASTIC® PUR-W** or other epoxy coatings, apply one or two crossed coats of **MAXELASTIC® PUR-EW** depending on frequency traffic expected, with a consumption of 0,25 – 0,5 kg/m<sup>2</sup> per coat.

## Application conditions

Do not apply when rain, dew, condensation or water contact is expected within 24 hours.

Application and substrate temperature must be above 5 °C. Do not apply with substrate and/or ambient temperature is at or below 5 °C, or when such temperatures are expected to fall below 5°C within 24 hours. Do not apply to frozen or frost-covered surfaces.

Ambient and surface temperature must be at least 3 °C higher than dew point. Check relative humidity and dew point before applying in proximities to marine environment.

## Curing

Allow a curing time at 20 °C and 50% R.H. of 1 day for pedestrian traffic and 7 days before flooding test. Lower temperatures and/or higher R.H. increase curing time.

## Cleaning

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

## CONSUMPTION

For use as single waterproofing membrane, two coats of **MAXELASTIC® PUR-EW** with 0,8 - 1,0 kg/m<sup>2</sup> per coat, for a total consumption of 1,6 – 2,0 kg/m<sup>2</sup>.

For use as UV-barrier and abrasion protection, one or two coats of **MAXELASTIC® PUR-EW** with 0,25 - 0,50 kg/m<sup>2</sup> per coat.

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on job-site to ascertain the total consumption exactly.

## IMPORTANT INDICATIONS

- Do not apply on substrates subject to raising damp or negative water pressure.
- Surface moisture content must be below 10 %. Allow substrate to dry enough after rain, water contact, dew, condensation, etc, as well as after washing surface.
- Avoid contact with rain, dew, condensation, water, etc the first 24 hours.
- Allow new concrete and mortars a curing time of 28 days before application.
- When use directly on substrate, prime always surface with **MAXEPOX® PRIMER-W**.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

## PACKAGING

**MAXELASTIC® PUR EW** is supplied in 22 kg drum. It is available white, grey, red, green and black colour. Other colours available under 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 35 °C. Storage at higher temperatures may result in an increase of viscosity.

## **SAFETY AND HEALTH**

**MAXELASTIC® PUR-EW** 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.

Consult the Material Safety Data Sheet for **MAXELASTIC® PUR-EW**. Disposal of the product and its empty 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

<b>Product characteristics</b>	
General appearance	One-component homogeneous paste
Colour	Grey, white, red, green and black
Density	1,05 ± 0,1
<b>Application and curing conditions</b>	
Minimum ambient and substrate temperature (°C)	>5
Drying-time between coats at 20 °C (h)	3 – 6
Total curing time at 20 °C y 50% H.R., (d)	
- Pedestrian traffic	1
- Flooding test	7
<b>Characteristics for cured product</b>	
Tensile strength, ASTM D-412 (N/mm <sup>2</sup> )	5,2
Elongation at break, ASTM D-412 (%)	373
<b>Consumption</b>	
As waterproofing membrane per coat/ total application, (kg/m <sup>2</sup> )	0,8 - 1,0 / 1,6 - 2,0
As UV-barrier and abrasion protection per coat/ total application (kg/m <sup>2</sup> )	0,25 - 0,50 / 0,25 - 1,0

## 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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