



# MAXELASTIC<sup>®</sup>

## PUR THERMOCOAT

### ELASTOMERIC, WATER-BASED POLYURETHANE MEMBRANE FOR THERMAL INSULATION OF ROOFS



#### DESCRIPTION

**MAXELASTIC<sup>®</sup> PUR THERMOCOAT** is a one-component, water-based polyurethane resin with very low thermal conductivity microspheres, suitable for all types of roofs and with high weathering and UV resistance. Once applied provides a waterproof energy-saving coating with high solar reflectance and high emittance, specially designed as thermal insulation barrier and heat protection.

#### APPLICATION FIELDS

- Low thermal conductivity and waterproofing membrane for all types of roofs and outdoor areas exposed to UV-rays: flat roofs, terraces, balconies, decks, facades, partition walls, etc.
- Thermal protection and minimizing cold-wall effect in roofs and walls.
- Protection of polyurethane insulation foams from weathering and UV rays.
- Thermal protection on tile roof, metal roofs, fiber-cement panels, etc.
- Thermal insulation on exterior faces of pillars and top floor slabs.

#### ADVANTAGES

- Reduces the temperature of the exposed surface under conditions of maximum solar radiation to approximately 10 °C.
- It considerably reduces the energy costs associated with cooling and air conditioning. High solar reflectance coating, reducing the heat absorption and the energy consumption of air conditioning equipment.
- Very high elasticity at both high and low temperatures. Accommodates movements of substrate due to settlements, 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-stable. It does not turn yellow and does not require protective coatings or screeds.
- Resistant to water ponding, allows its use on flat roofs.
- Ready to use and easy application manually or by air-less spray (brush, roller, etc.). Does not require skilled applicators. Cold applied.
- Environmentally friendly: non-toxic, water-based, non-flammable and solvent-free product.

#### APPLICATION INSTRUCTIONS

##### Surface preparation

Substrate to be treated must be clean and free of efflorescence, loose particles, grease, oils, dust, organic growth or any other contaminants that may affect to adhesion.

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. Finally, metal surfaces must be primed with water-based epoxy primer **MAXEPOX<sup>®</sup> PRIMER-W** (Technical Bulletin no. 372) with a consumption of 0,2-0,30 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<sup>®</sup> PUR THERMOCOAT**.

##### Application

**MAXELASTIC<sup>®</sup> PUR THERMOCOAT** 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<sup>®</sup> PUR THERMOCOAT** is applied by roller, hard hair brush or air-less spray. If used an air-less spray equipment, dilute with the minimum amount of water that allows its application.

On previously waterproofed surfaces, and after 24 hours from the last coat for waterproofing material, apply one or two crossed coats of **MAXELASTIC<sup>®</sup> PUR THERMOCOAT** with a consumption of 0,5 to 1,0 kg/m<sup>2</sup> per coat, allowing a drying-time of 6-10 hours between coats depending on weather conditions. On steel surfaces apply two coats in perpendicular direction with a recommended total consumption from 2,0 to 3,0 kg/m<sup>2</sup>.

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 THERMOCOAT**.

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

On facades and walls, once primer is dry, apply successive crossed coats with 0,25–0,5 kg/m<sup>2</sup> per coat, for a total consumption of 2,0–3,0 kg/m<sup>2</sup>.

### 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 5-7 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

Estimated consumption of **MAXELASTIC® PUR THERMOCOAT** is one or two coats applied with a consumption from 0,5 to 1,0 kg/m<sup>2</sup> per coat, with a total consumption from 1,0 to 2,0 kg/m<sup>2</sup> on waterproofed concrete or mortar surfaces, and two coats with a total consumptions from 2,0 to 3,0 kg/m<sup>2</sup> on metal surface.

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 rainfall, dew, condensation, water, etc the first 24 hours.
- Observe the recommended consumption per coat.
- Do not add solvents, thinners, additives, aggregates or other compounds.
- 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 THERMOCOAT** is supplied in 22 kg drum. It is available white 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 between 5 °C and 35 °C. Storage at higher temperatures may result in an increase of viscosity.

### SAFETY AND HEALTH

**MAXELASTIC® PUR THERMOCOAT** 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 THERMOCOAT**.

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

Product characteristics		
CE Marking, EN 1504-2		
Description. Polyurethane coating for protection of concrete. Coating (C).		
Principles / Methods. Protection against ingress with coating (Principle 1-PI / 1.3) and Moisture control with coating (Principle 2-MC / 2.2)		
General appearance and color	White thixotropic paste	
Density (g/cc)	1,07 ± 0,1	
Granulometry (mm)	0,1 – 0,3	
Application and curing conditions		
Temperature / Relative Humidity, (°C / %)	Ambient:	Substrate:
	> 5 / < 90	> 5 / ---
Minimum/Maximum waiting time between coats at 20 °C, (h)	6–10	
Total curing time at 20 °C, (d)		
- Pedestrian traffic	1	
- Flooding test	5-7	
Cured product characteristics		
Solar reflectance, ASTM E903-96 (%)	84,5 ± 0,1	
Determination of emittance, ASTM C1371	0,78 ± 0,02	
Thermal conductivity of micro spheres (W/m <sup>0</sup> k)	0,07	
Adhesion to concrete, ASTM D4541 (MPa)	>1,5	
Elongation at break / Tensile strength, ASTM D412 (% / MPa)	250 / 1,8	
Consumption*		
Number of coats on concrete / metal surfaces	1 or 2 / 2	
Total consumption on concrete / metal surfaces, (kg/m <sup>2</sup> )	0,5 - 2,0 / 2,0 - 3,0	

\* 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.

## 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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