



MAXELASTIC[®] PUR -HW

ELASTOMERIC, WATER-BASED, HYBRID POLYURETHANE MEMBRANE FOR WATERPROOFING OF ROOFS AND OUTDOOR AREAS



DESCRIPTION

MAXELASTIC[®] PUR-HW is a one-component, water-based, hybrid polyurethane resin, that once applied provides an elastomeric and continuous waterproofing membrane, UV stable and water ponding resistant, suitable for all type of roofs and outdoor areas.

APPLICATION FIELDS

- Single waterproofing membrane for all types of roofs and outdoor areas exposed to UV-

rays: flat roofs, terraces, balconies, decks, facades, partition walls, etc.

- Waterproofing under tile for internal or external use: balconies, kitchens, wet areas, etc.
- Waterproofing of green roofs, planter boxes, etc.
- Waterproofing membrane for civil works and industrial facilities: bridge decks, 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 exposed to marine environment: platforms, silos, cranes, etc.

ADVANTAGES

- 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. Cold applied.
- Environmentally friendly: non-toxic, water-based, non-flammable and solvent-free product. Suitable for indoor and confined working areas.

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®** (Technical Bulletin No. 2). Rebars and other metal elements exposed during the concrete preparation should be cleaned and passivated with **MAXREST® PASSIVE** (Technical Bulletin No. 12) and then covered **MAXREST®**.

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

suitable elastomeric sealant from **MAXFLEX®** range.

All substrates must be primed with water-based epoxy primer **MAXEPOX® PRIMER -W** (Technical Bulletin No. 372) with a consumption of 0,20-0,30 kg/m² per coat. Allow primer to be perfectly dry to touch, from 12-24 hours depending on weather conditions, before applying **MAXELASTIC® PUR -HW**.

Application

MAXELASTIC® PUR -HW 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 -HW is applied by roller, hard hairbrush or air-less spray. If used an air-less spray equipment, dilute with the minimum amount of water that allows its application.

For use as single waterproofing membrane: on previously primed dry surface, apply two crossed coats of **MAXELASTIC® PUR -HW** with a consumption of 0,8 to 1,0 kg/m² per coat, allowing a drying-time of 6-10 hours between coats depending on weather conditions.

Waterproofing of roofs according to ETAG 005: Apply two or three coats with a total consumption of 2,0 or 3,0 kg/m², respectively.

On cold joints, 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 -HW**.

On active fissures, once treated with an appropriate sealant of **MAXFLEX®** range and after its curing time has finished, apply **MAXELASTIC® PUR -HW** coating reinforced with glass fiber mesh **DRIZORO® MESH 58**.

The expansion joints, once properly treated and sealed with **MAXFLEX®** products and after their curing time has finished, leave uncovered by the coating, respecting their position and avoiding contact with the sealing material.

On facades and walls, once primer is dry, apply two crossed coats with 0,25-0,30 kg/m² per coat, for a total consumption of 0,50-0,60 kg/m².

For parking areas exposed to car traffic, after a minimum curing time of 12-24 hours and once is perfectly dry **MAXELASTIC® PUR -HW**, apply two crossed coats of **MAXURETHANE 2C -W** (Technical Bulletin No. 381) with a minimum total consumption of 0,6 kg/m².

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, apply two coats of **MAXELASTIC® PUR -HW** with 0,8-1,0 kg/m² per coat, for a total consumption of 1,6-2,0 kg/m².

Waterproofing of roofs according to ETAG 005: Apply two or three coats with a total coverage of 2,0 or 3,0 kg/m² (1,0 kg/m² 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 jobsite 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.
- 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 -HW is supplied in 25 kg drum. It is available white, grey, red, tile, 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 -HW 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 -HW**.

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) CE marking. (ETAG-005. Part 6) ETA 16/0731. Description and Uses: Liquid applied roof waterproofing kit. Specific stipulations for kits based on polyurethane.		
General appearance and colour	One-component, coloured homogeneous paste	
Colour	Grey, white, red, tile, green and black	
Density, ISO 1675 (g/cm ³)	1,20 ± 0,1	
Application and curing conditions		
Minimum ambient and substrate temperature (°C)	> 5	
Waiting time between applications at 20°C, (h)	6-10	
Total curing time at 20°C and 50 % H.R. (d)		
- Pedestrian traffic	1	
- Flooding test	7	
Cured product characteristics		
Water vapour transmission rate, UNE-EN ISO 7783 (g/m ² d)	17,5	
Thickness of equivalent air coat (S _D)	1,2 m - Class I: Permeable	
Water liquid permeability, (Kg/m ² h ^{0.5})	0,006	
Permeability to CO ₂ , EN 1062-6.	S _D = 57,0	
Crack bridging ability. Determination of crack resistance UNE-EN 1062-7 Classification according to UNE-EN 1504-2		
- MAXELASTIC® PUR -HW	>500 µm (Class A3)	
- MAXELASTIC® PUR -HW + DRIZORO® VEIL + MAXELASTIC® PUR -EW	>2500 µm (Class A5)	
Shore hardness, UNE-EN ISO 868 (Shore A / Shore D)	>60 / >20	
Tear strength, ASTM D-624 (kN/m)	32,9	
Adhesion on concrete at 28 days UNE-EN 1542 (N/mm ²)		
- MAXELASTIC® PUR -HW	3,30	
- MAXELASTIC® PUR -HW + DRIZORO® VEIL + MAXELASTIC® PUR -EW	2,20	
Adhesion on concrete at 28 days, ASTM D-4541 (MPa)	>1,5	
Tensile strength, ASTM D-412 (MPa)	>3,0	
Elongation at break, ASTM D-412 (%)	> 270	
Classification according to ETAG 005		
Working life / Climatic zones	W2	W3
Climatic zone	S (Severe)	
Imposed loads	P3 (Normal)	
Roof slope	S1 (<5%)	
Lowest surface temperature	TL4 (-30°C)	
Highest surface temperature	TH4 (90°C)	
Consumptions*		
	Standard	ETAG 005
Consumption per coat, (kg/m ²)	0,8-1,0	1,0
Consumption per total application, (kg/m ²)	1,6-2,0	2,0 (W2) 3,0 (W3)

*These figures may vary depending on porosity, texture, substrate conditions and application method. A preliminary test on-site will determine the coverage 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.