



MAXELASTIC[®]

PUR -E

ELASTIC POLYURETHANE COATING FOR WATERPROOFING AND PROTECTION OF OUTDOOR AREAS

DESCRIPTION

MAXELASTIC[®] PUR -E is a one-component liquid based on aliphatic polyurethane resins, that once cured provides a continuous and waterproof elastic protective coating, with excellent resistance to UV radiation, designed for outdoor applications with total colour stability.

APPLICATION FIELDS

- Protection against UV radiation and allows pedestrian traffic on roofs and other outdoors areas waterproofed with **MAXELASTIC[®] PUR**.
- UV stable protection and topcoating on polyurethane or epoxy systems at outdoors applications.
- Waterproofing and protection of concrete and cement-based mortars in general at outdoor applications.
- Anti-corrosion protective coating with decorative finish suitable for metal structures; bridges, cooling towers, sewage plants, harbours, etc.
- Finish and topcoating with chemical protection in permanent immersion applications: water tanks, swimming pools, aquariums and other water retaining structures.

ADVANTAGES

- Excellent adhesion and total compatibility with **MAXELASTIC[®] PUR** and other polyurethane systems.
- Resistant to weathering and UV-rays. Great colour stability and it does not turn yellow.
- Good chemical resistance to water, seawater, wastewater, grease and oils, de-icing salts, soil salts, diluted alkali and acid solutions, etc.
- Ready to use and easy to apply manually or mechanically by air-less spray equipments.
- Suitable as a long-lasting decorative topcoating

without maintenance for outdoor applications.

APPLICATION INSTRUCTIONS

Surface preparation

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 the adhesion.

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.

For cleaning and preparation, 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.

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). Exposed or corroded rebars should be cleaned and passivated with **MAXREST[®] PASSIVE** (Technical Bulletin No. 12).

Metal surfaces must be cleaned by sandblasting or shot blasting to remove all traces of corrosion or rust, and finally degreased, dried and with no dust. For applications on low porosity substrates, glass, ceramic tiles, metal, etc., use the silane-based primer **MAXPRIMER[®] PUR** (Technical Bulletin No. 213).

Expansion joints and active cracks, once open and clean, must be sealed with a suitable sealant of **MAXFLEX[®]** range.

Application

MAXELASTIC[®] PUR-E is supplied ready to use. Before application, stir the content of the packaging with a dry and clean tool or preferably by mechanical means with a slow speed electric drill (300-400 rpm) fitted with a disc mixer suitable for liquids. Mix 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.

Apply using a solvent-resisting brush, roller or air-less spray machine. If using an air-less gun, **MAXELASTIC® PUR-E** can be diluted with the minimum quantity of **MAXSOLVENT®** (up to 10-15%, by volume) that allows it to be sprayed.

UV-protective coating on MAXELASTIC® PUR and other polyurethane or epoxy coatings:

Allow to cure 24 hours the previous coating before application. Apply one or two coats with a consumption from 0,20 to 0,25 kg/m² per coat, depending on the type of traffic expected. Allow the first coat to dry between 3 and 5 hours, depending on environmental and ventilation conditions, before applying the second one.

Protective coating for concrete, mortars and other substrates in general: Apply two pure coats of **MAXELASTIC® PUR-E** in perpendicular direction, with a consumption from 0,20 to 0,25 kg/m² per coat, achieving a total consumption from 0,4 to 0,5 kg/m². Allow the first coat to dry between 3 and 5 hours, depending on environmental and ventilation conditions, before applying the second one.

On porous substrates and/or with numerous cracks, apply the first coat of **MAXELASTIC® PUR-E** as primer diluting with **MAXSOLVENT®** (10-15%, by volume) for better penetration.

Non-slip finish coating for concrete, mortars and other substrates in general: Apply a first coat as primer of **MAXELASTIC® PUR-E** diluted with **MAXSOLVENT®** (10-15%, by volume) with a consumption from 0,20 to 0,25 kg/m² per coat, depending on porosity substrate. Once it is dry, apply a first pure coat of **MAXELASTIC® PUR -E** with an approximate consumption of 0,20-0,25 kg/m². While this coat is still tacky, dust dry and clean silica sand **DRIZORO® SILICA 0204** (0,2-0,4 mm size) with an estimated consumption from 1,0 to 1,5 kg/m². Once this coat is dry (3 to 5 hours, depending on temperature and ventilation conditions), sweep and vacuum surface to remove excess sand and then, apply a second pure coat of **MAXELASTIC® PUR -E** with a consumption of about 0,3-0,4 kg/m², depending on aggregate size used.

Application conditions

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

Do not apply with substrate and/or ambient temperature below 5 °C, or when such temperatures are expected to fall below within the first 24 hours after application. Do not apply on frozen or frost-covered surfaces.

Ambient and surface temperature must be at least 3 °C higher than dew point. Do not apply with R.H.

higher than 85 %. Measure the relative humidity and dew point before applying the product for applications carried out in proximities of marine environment.

Curing

Allow **MAXELASTIC® PUR-E** to cure at least 1 day at 20 °C and 50% R.H. before opening to pedestrian traffic, and 7 days at 20 °C and 50% R.H. for permanent immersion or flooding test. Lower temperatures and/or higher R.H. increase curing time.

Cleaning

All tools and equipments must be cleaned immediately with **MAXSOLVENT®** after use. Once product cures, this can only be removed by mechanical means.

CONSUMPTION

MAXELASTIC® PUR-E is applied in one or two coats, with an estimated consumption of 0,20 to 0,25 kg/m² per coat. Porous substrates may require additionally a third coat.

These figures may vary depending on substrate conditions and application method, a preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS

- Do not apply on substrates subject to raising damp or negative water pressure.
- Surface moisture content must be below 5 %. Allow enough time for the substrate to dry after rain, contact with water, damp, dew, condensation, etc, as well as after cleaning surface.
- Allow new concrete and mortars a curing time of 28 days before application.
- Do not apply **MAXELASTIC® PUR-E** above 85% of relative humidity.
- Do not add solvents, thinners, additives, aggregates, or any other non-specified compound, and nor exceed the recommended mixing ratio when using **MAXSOLVENT®**. Other solvents could modify or inhibit the curing process.
- Observe the recommended consumption per coat.
- For other uses not specified in this Technical Bulletin or further information, consult the Technical Department.

MAXELASTIC® PUR -E

PACKAGING

MAXELASTIC® PUR-E is supplied in 20 kg metal drums. It is available in white, grey, red and green colour.

STORAGE

Nine months in its unopened and undamaged original sealed packaging. Store in a cool, dry and covered place, protected from moisture, frost and away from direct exposure to 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-E is a flammable product so all storage, transport and handling precautions must be observed for this kind of product. Do not smoke

in working areas and provide adequate ventilation. Keep away packaging from heat and ignition sources.

Skin and eye contact must be avoided. Safety rubber goggles and protective gloves should be used when handling, mixing and applying the product. In case of contact with skin, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for **MAXELASTIC® PUR-E**.

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		
General appearance and colour	One-component, homogeneous coloured liquid (White, grey, red and green)	
Application and curing conditions		
Temperature / Relative humidity, (°C / %)	Ambient	Substrate
	> 5 / <85	> 5 / < 5
Waiting time between coats at 20 °C, (h)	3 – 5	
Drying time at 20 °C and 50% H.R., (h)	24	
Total curing time at 20 °C and 50 % R.H., (d)		
- Pedestrian traffic	1	
- Permanent immersion and flooding test	7	
Cured product characteristics		
Tensile strength, ASTM D-412 (N/mm ²)	15,8	
Elongation at break, ASTM D-412 (%)	157	
Foldability at low temperature (-5°C), UNE-EN 495-5	No fissures	
Adhesion to concrete, ASTM D-4541 (MPa)	> 2,0	
Consumption*		
Consumption per coat / per total application, (kg/m ²)	0,2-0,25	0,4-0,5

* These figures may vary depending on 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.



DRIZORO, S.A.U.

C/ Primavera 50-52 Parque Industrial Las Monjas
28850 TORREJON DE ARDOZ – MADRID (SPAIN)
Tel. 91 676 66 76 - 91 677 61 75 Fax. 91 675 78 13
e-mail: info@drizoro.com Web site: drizoro.com

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