



MAXELASTIC[®]

PUR



POLYURETHANE ELASTOMERIC MEMBRANE FOR WATERPROOFING OF ROOFS AND OUTDOOR AREAS

DESCRIPTION

MAXELASTIC[®] PUR is a one-component liquid product ready to use, based on moisture curing special polyurethane resins, that provides a high performance waterproof elastic membrane designed for long-term protection and waterproofing of concrete, cement-based mortars, bricks, tiles, etc.

APPLICATION FIELDS

- Elastic waterproofing for all types of roofs, terraces and balconies.
- Waterproofing and protection of water tanks, reservoirs, digesters, etc.
- Will bridge, seal and fill hairline cracks and outstanding points subjected to movements.
- Waterproofing prior to tiling in indoor or outdoor applications, such as balconies, kitchens, bathrooms, etc.
- Waterproofing of irrigation channels, pipelines, etc.
- Coating and protection of metal structures; tanks or silos, steel pipes, etc.
- External waterproofing and protection for underground concrete structures.

ADVANTAGES

- Very high elasticity at both high and low temperatures. Absorbs thermal movements of substrate subjected to extreme weather conditions as well as vibrations.
- Excellent crack-bridging ability, acting as anti-fracture membrane when it is applied on substrate.
- Forms a continuous and waterproofing membrane without joints or connections,

sealing permanently cracks and fitting to the geometry of the substrate.

- Good permeability to water vapour so it allows substrate to breath.
- Excellent adhesion on common substrates used in construction.
- Good chemical resistance to de-icing salts, seawater, wastewater, diluted alkali and acid solutions.
- Withstands a wide temperature range, i.e. from – 40 °C to 100 °C.
- Good abrasion resistance.
- Suitable membrane for permanent immersion applications.
- Long-lasting protection compared to paints and other coatings. Maintenance-free.
- Ready to use and easy applied manually or by airless spray.

APPLICATION INSTRUCTIONS

Surface preparation

Surface must be sound, completely dry and clean, free from dirt, old paints or coatings, efflorescence, greases, oils, de-moulding agents, curing agents or any foreign material which could affect the adhesion. Remove any unbounded material from the substrate. Surface damages such as defects, cavities, honeycombs, peelings should be repaired with a structural mortar. On metal surfaces, any rust should be removed and must be degreased. Remove all concrete around structural reinforcement affected by corrosion. Clean reinforcements of rust or scale and coat with the oxide converter and anti-corrosive protection **MAXREST[®] PASSIVE** (Technical Bulletin n° 12). Use the structural mortar **MAXREST[®]** (Technical Bulletin n° 4) to repair the area. Expansion joints and fissures subject to movements once opened up and clean,

should be treated with a suitable sealant such as type **MAXFLEX**[®].

Application

MAXELASTIC[®] **PUR** is supplied ready to use. Previous to application, stir the content of the packaging using a dry and clean tool in order to get a homogeneous paste. **MAXELASTIC**[®] **PUR** can be applied by brush, roller or airless spray. Apply in two coats, with a coverage of 0,5 - 0.6 kg/ m² per layer and in perpendicular direction each other. Allow first coat to dry between 10 and 12 hours depending on environmental and ventilation conditions. The total thickness for the application (two layers) should be about 0,8 - 1 mm. On vertical surfaces, product should be applied in three coats with the same total thickness. Over porous substrates, the first layer should be diluted with 10 – 15 % of **MAXSOLVENT**[®] for better penetration.

For expansion joints and fissures subjected to movements: once **MAXFLEX**[®] has cured, a first layer with 0,6 kg/ m² of **MAXELASTIC**[®] **PUR** will be applied and then, a strip of veil of 6 – 8 cm wide will be spread and completely embed on this fresh layer. Once it dries, apply the **MAXELASTIC**[®] **PUR** second layer with a load of 0,6 kg/ m².

For applications subject to permanent immersion: a coat of **MAXELASTIC**[®] **PUR PRIMER** (Technical Bulletin n° 194) with a load of 0,25-0,3 kg/ m² must be applied, and while it is still tacky apply the **MAXELASTIC**[®] **PUR** waterproofing membrane.

For applications exposed to wheeled traffic: after **MAXELASTIC**[®] **PUR** has dried 24 hours, two coats of the abrasion protective membrane **MAXELASTIC**[®] **PUR-F** (Technical Bulletin n° 188) must be applied.

For applications on non-porous surfaces: on such surfaces, i.e. metal, glass, granite, vitrified elements, polycarbonate, etc, a primer coat of **MAXPRIMER**[®] **PUR** (Technical Bulletin n° 213) with 0,1 – 0,15 l/ m² must be used previously.

Applications carried out at low temperatures, i.e. less than 15 °C, in which a shorter curing time is desired, a 1 kg can of the catalyst **MAXELASTIC**[®] **PUR CAT** can be added per each 25 kg drum of **MAXELASTIC**[®] **PUR** in order to speed up the curing process.

Application conditions

Do not apply neither below 5 °C or when such temperatures are expected to drop within the 24 hours. Do not apply on frozen surfaces.

Do not apply **MAXELASTIC**[®] **PUR** above 90% of relative humidity.

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

Curing

Allow a curing time of 7 days at 20 °C and 50 % R.H. for permanent immersion applications. Lower temperatures or higher R.H. increase the curing time.

Cleaning

Use **MAXSOLVENT**[®] for cleaning tools and equipments immediately after application. Once it cures, product can only be removed by mechanical means.

CONSUMPTION

Total coverage is from about 1,0 to 1,2 kg/m² (0,5 to 0,6 kg/m² per layer) with an average film thickness of 0,4-0,5 mm per layer. 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 if humidity content of the surface exceeds 5 %. Allow sufficient time for the substrate to dry after rain, dew, condensation or other inclement weather and after cleaning surface.
- New concrete and mortars must cure minimum of 28 days before application.
- Do not exceed the ratio recommended when mixing with **MAXSOLVENT**[®] and do not use any different solvent. Other solvents could modify or inhibit the curing process.
- Do not exceed recommended thickness per coat during application.
- **MAXELASTIC**[®] **PUR** can be affected by a superficial colour change over a long period of time exposed to UV rays. Therefore, if a permanent aesthetic finish is required, an aliphatic UV-stable coating such as **MAXELASTIC**[®] **PUR-F** (Technical Bulletin n°: 188) with 0,2 kg/ m² can be used as topcoat.
- For other uses not specified in this Technical Bulletin or further information, consult our Technical Department.

PACKAGING AND COLOURS

MAXELASTIC® PUR is supplied in 5 and 25 kg drums. It is available in white and grey colour.

STORAGE

Twelve months in its original unopened container in a dry and covered place, protected from frost and 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 is a flammable product so all storage, transport and handling precautions must be observed for these kind of product.

Do not smoke in working areas and provide adequate ventilation. Keep packaging away from heat and ignition sources.

Skin and eye contact must be avoided. Safety goggles and protective gloves should be used during application. In case of skin contact, wash affected areas with soap and water. In case of eye contact rinse thoroughly with clean water but do not rub. Seek medical attention if irritation persists.

Safety Data Sheet of **MAXELASTIC® PUR** is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to local regulations.

TECHNICAL DATA

| Characteristics of the product | |
|---|---------------------------------|
| Appearance | One component homogeneous paste |
| Density (g/cm ³) | 1,35 ± 0,05 |
| Characteristics for application | |
| Application conditions, T (°C)/R.H. (%) | > 5 / < 90 |
| Drying time at 20 °C and 50 % of R.H., (h) | 10-12 |
| Curing time at 20 °C and 50 % R.H., (d) | 3 |
| Curing time at 20 °C and 50 % R.H. for permanent immersion, (d) | 7 |
| Characteristics for cured product | |
| Crack-bridging capability, NFT 30/703, (mm) Curing for 7 days at 23 °C and 50% R.H. | 5,4 |
| Curing for 3 days at 23 °C and 50% R.H. & 4 days at -20°C | 8,9 |
| Elongation at break, ISO 37/1994, (%) | 852 |
| Tensile strength, ISO 37/1994 (MPa) | 3,05 |
| Adhesion on concrete, ASTM D-4541 (MPa) | 2,6 (Breaks the substrate) |
| Water vapour permeability, EN-ISO 7783 Sd (m, layer of air)/μ | 1,16/1054 |
| Specification for waterproofing water conveyers, dams paraments and tanks in hydraulic works, UNE 104309-part 1,2 and 3 | Meets requirements |
| European Technical Approval according to ETAG 005 | ETA-06/0073 |
| Suitability for direct contact with drinking water, RD 140/2003 and 2002/72/CE | Approved |
| Consumption/ Thickness | |
| Approximate consumption per layer/ total application (kg/m ²) | 05-06/1,0-1,2 |
| Approximate thickness per layer/ total application (mm) | 0,4-0,5/0,8-1,0 |

GUARANTEE

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