



MAXELASTIC[®]

PUR-BIT

BITUMEN-POLYURETHANE ELASTOMERIC MEMBRANE FOR WATERPROOFING



DESCRIPTION

MAXELASTIC[®] PUR-BIT is a one-component, liquid product ready to use, based on bitumen-polyurethane resin that provides a protective waterproofing elastomeric membrane for suitable for concrete and cement-based mortar substrates.

APPLICATION FIELDS

- Elastic waterproofing of roofs, terraces, balconies under-tile, planter boxes and other outdoor non-exposed surfaces.
- External waterproofing and protection of underground structures: foundations, pipelines, retaining walls, etc.
- Waterproofing of indoor wet areas such as bathrooms, wardrobes, kitchens, etc.
- Waterproofing and protection of masonry, wood, and metal surfaces on non-exposed areas.

ADVANTAGES

- Remarkably high elasticity at both high and low temperatures, enabling to absorb thermal movements of substrate with different weather conditions as well as vibrations.
- Exceptionally good elasticity recovery compared to common soft bitumen coatings.
- Excellent crack-bridging ability, acting as anti-fracture membrane on substrate. Seals and fills cracks permanently.
- Seamless and continuous waterproofing membrane without joints, overlapping and connections.
- Excellent adhesion on concrete. No special primers required.
- Higher chemical resistance than concrete.
- Withstands a wide temperature range; -40°C to 90°C.
- Ready to use and easy applied manually by brush, roller, or air-less spraying means.

- Cold-applied membrane. Does not require the use of hot-melt equipment.

APPLICATION INSTRUCTIONS

Surface preparation

Surface to be waterproofed must be sound, dry, and lightly rough, without poorly adhered parts, superficial laitance and as uniform as possible. Likewise, it must be clean, free of paints or coatings, efflorescence, loose particles, grease, release oils, curing agents, dust, plaster, gypsum, etc., or other substances that could affect the adherence of the product.

If the surface had previously been coated with lime, resins, or acrylic treatments, etc., these must be removed, leaving only the strongly adhered remains. For the cleaning and surface preparation, preferably on smooth and/or poorly absorbent ones, use preferably sandblasting or high-pressure water, very high aggressive mechanical means not being advisable.

Surface damages such as defects, cavities, honeycombs, peelings, and others unsound areas, once opened to a minimum depth of 2 cm should be restored with a structural repair mortar such as **MAXREST®** (Technical Bulletin No. 4). Remove all concrete around structural reinforcement affected by corrosion, clean of rust or scale and then, coat with the oxide converter and anti-corrosion protection **MAXREST® PASSIVE** (Technical Bulletin No. 12) while the superficial and non-structural iron must be cut to a depth of 2 cm and subsequently covered with repair mortar.

Metallic surfaces must be cleaned by sandblasting to eliminate superficial corrosion and rust, and also must be degreased, dried and free of dust.

Application

MAXELASTIC® PUR-BIT is supplied ready to use. Previous to application, stir the content of the packaging using a dry and clean tool or preferably by mechanical means with a slow speed drill (400-600 rpm) in order to get a homogeneous paste.

Over porous substrates, the first coat can be diluted with 5-10 % of **MAXSOLVENT®** for better penetration. For applications over low porosity substrates, glass, glazed tiles, metal, etc. use the silane-based primer **MAXPRIMER® PUR** (Technical Bulletin No. 231). For applications using air-less type spraying means, it is recommended to dilute with the

minimum amount of **MAXSOLVENT®** that allows its spraying.

In case that substrate having residual humidity, apply the **MAXEPOX® PRIMER-W** water-based epoxy primer (Technical Bulletin No. 372) with an estimated consumption of 0,2-0,3 kg/m², depending on substrate porosity. Allow this primer to dry completely until tack-free before applying **MAXELASTIC® PUR-BIT**, i.e., about 12-24 hours, depending on temperature, relative humidity, and ventilation conditions.

Apply **MAXELASTIC® PUR-BIT** by brush, roller, airless spray, or rubber squeegee in two coats, with a consumption of 0,5-0,9 kg/m² per coat (total 1,0-1,8 kg/m²) allowing to be tack-free with a drying-time from 8 to 12 hours between coats, depending on temperature conditions. If required, additional coats are allowed letting to be tack-free between coats. On vertical surfaces, apply in successive coats with consumption of 0,3 kg/m² per coat to avoid the slump.

For construction joints, and fissures and cracks subject to movements, once opened up and clean properly, should be filled and sealed with either a suitable polyurethane elastomeric sealant such as **MAXFLEX® 100 LM** (Technical Bulletin No. 65) or a mix composed of **MAXELASTIC® PUR -BIT** and the **DRIZORO SILICA 0204** dry silica sand or similar (maximum silica size 1,00 mm) with a mixing ratio 1:1 by weight. Once it has cured for 3 days, apply a first coat with 0,9 kg/m² of **MAXELASTIC® PUR-BIT** and spread a strip of the **DRIZORO® VEIL E-60** polyester veil (Technical Bulletin No. 209), with 6-8 cm wide, ensuring it is completely embedded on this fresh coat. Once it dries, apply the second coat of **MAXELASTIC® PUR-BIT** with a load of 0,9 kg/m². Other outstanding points such as corners, coves and penetration pipes require reinforcing **MAXELASTIC® PUR-BIT** with similar method.

The expansion joints, after properly treating and sealing them with **MAXFLEX®** products and after their curing time has finished, must not be covered by the coating, respecting their position and avoiding contact with the sealing material.

Surfaces to be tiled, improve the adhesion for tiling mortar by spreading of dry and clean sand **DRIZORO SILICA 0204** with a consumption of 1,0-1,5 kg/m² on the last fresh coat of **MAXELASTIC® PUR-BIT**. Once it is dry, sweep and vacuum surface to remove excess sand.

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-BIT** above 90 % of relative humidity. Surface and ambient temperature must be at least 3°C higher than dew point. Measure the relative humidity and dew point for applications conducted in proximities of marine environment. Do not apply if rainfall, dew, condensation, or water contact is expected within 24 hours after application.

Curing

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

Cleaning

Use **MAXSOLVENT®** for cleaning tools and equipment immediately after use. Once it cures, product can only be removed by mechanical means.

CONSUMPTION

Estimated consumption for **MAXELASTIC® PUR-BIT** applied in two coats is about 1,0-1,8 kg/m² (0,5-0,9 kg/m² per coat). Additional coats are allowed if required. These figures may vary depending on porosity, texture, substrate conditions and application method. A preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS

- Surface moisture content must not exceed 5%.
- Do not apply on substrates subject to rising dampness or negative water pressure.
- Allow sufficient time for the substrate to dry after rain, dew, condensation, or other inclement weather and after washing surface.
- Allow new concrete and mortars a curing time of 28 days before application.
- Avoid contact with water, moisture, condensation, dew, etc., during the first 24 hours of curing.
- Do not apply **MAXELASTIC® PUR-BIT** above 90 % of relative humidity.
- Do not exceed the ratio recommended when mixing with **MAXSOLVENT®** and do not use any other solvent. Other solvents could modify or inhibit the curing process.
- Do not add aggregates, admixtures, or any other compounds to **MAXELASTIC® PUR-BIT**.

- For other uses not specified on this Technical Bulletin or further information, consult our Technical Department.

PACKAGING

MAXELASTIC® PUR-BIT is supplied in 25 kg drums, and it is available in black colour.



STORAGE

Nine months in its original unopened packaging in a dry and covered place, protected from 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-BIT 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 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-BIT** is available by request. Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

TECHNICAL DATA

Characteristics of the product	
CE Marking, EN 1504-2.	
<i>Description.</i> Polyurethane coating for protection against ingress of water and CO ₂ . Coating (C).	
<i>Principles / Methods.</i> Protection against ingress with coating (Principle 1-PI / 1.3), Moisture control with coating (Principle 2-MC / 2.2)	
ASTM C-836	
<i>Standard Specification for High Solids Content, Cold-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course</i>	
Appearance	Black paste
Density (g/cm ³)	1,4 ± 0,10
Solid content (%)	>90
Characteristics of application	
Application conditions, T (°C)/R.H., (%)	> 5 / < 90
Drying time at 20°C and 50 % of R.H., (h)	8-12
Putting-into service at 20°C and 50 % R.H., (d)	7
Characteristics of cured product	
Service temperature range, (°C)	-40°C to 85°C
Permeability to water vapour, EN ISO 7783-1/-2. Classification, S _D (m)	Class II: 5m < S _D < 50m
Permeability to water and capillary absorption, EN 1062-3. w (kg/m ² ·h ^{0,5})	< 0,1 Low Permeability. Class III (W3)
Permeability to CO ₂ , EN 1062-6. S _D (m)	> 50
Adhesion on concrete at 28 days, EN 1542 (MPa)	≥ 1,0
Shore-A hardness, EN-ISO 868-3	35
Hardness, Type 00, ASTM C836; ASTM D2240	97 (Pass)
Elongation at break, ASTM D-412 (%)	600
Tensile strength, ASTM D-412 / EN-ISO 527-3, (MPa)	4,0
Low temperature crack bridging, ASTM C836: ASTM C1305 (10 cycles at -26°C)	No cracking (Pass)
Extensibility after heat aging, ASTM C836; ASTM C1522	No cracking (Pass)
Adhesion on mortar under 7 days water immersion, ASTM C836; ASTM C1375 (lbf)	12 (Pass)
Adhesion on concrete, ASTM D-4541 (MPa)	1,60
Consumption*	
Consumption per coat / Total application (kg/m ²)	0,5-0,9 / 1,0-1,8

* These estimated figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-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 conducted 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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