

**PRODUCTS AND SYSTEM** 



# **MAXELASTIC® POLY System**



Waterproofing and protection systems for structures by hot-applied (or cold-applied) polyurea liquid membrane

### DRIZORO, S.A.U.





### COMPANY

**DRIZORO S.A.U.** is a Spanish company established in **1977**, beginning activity its a manufacturer of chemical products for construction. Nowadays, the company is a leader on supplying speciality products and systems designed for waterproofing, concrete repair, flooring and decorative finishes.

Our **Headquarters** and Production Plant is based in Madrid **(Torrejón de Ardoz)** - Spain. This is also the base for all operations of the different departments; Production, Research & Development, Laboratory, Technical, Sales, Marketing and Administration.

#### COMMITMENT TO QUALITY AND ENVIRONMENT

Our strong commitment to Quality Control and the Environment has led us to stablish an Integrated Quality and Environmental Management System. This is based on the ISO 9001:2015 and ISO 14001:2015 standards, and it was certified by *Bureau Veritas Quality International*.

#### COMMITMENT TO RESEARCH, DEVELOPMENT AND INNOVATION

Our strong commitment to Research and Development of both our product range and of human resources enables us to offer the market innovative systems with a high standard of quality whilst being mindful of environmental concerns. These developments are transferred into improvements to our products range. This is based on substantial market research, including onsite experience under the most adverse worldwide conditions, combined with laboratory studies.

#### **TECHNICAL ASSISTANCE**

Our Technical Department and Sales Network comprises of highly qualified professionals with wide experience and trained in the construction industry. They provide personalized advice to our clients during all phases of construction in order to specify the most suitable system of products.

### **DRIZORO TECHNICAL SOLUTIONS**





REPAIR









# **HOT-APPLIED POLYUREA SYSTEM DESCRIPTION**

**MAXELASTIC® POLY** is a hot-applied, 100% solid and solvent-free,two-components, highly-reactive pure polyurea applied in liquid form suitable for waterproofing and protection of different type of structures and surfaces. Once applied, **MAXELASTIC® POLY** forms an elastomeric membrane providing a seamless, fully continuous, high strength waterproofing coating due to its high density. Its properties make **MAXELASTIC® POLY** the optimal solution for waterproofing of large areas. The fast reaction of **MAXELASTIC® POLY** provides stability in just 5-7 seconds, ensuring waterproofing properties in a period of less than 24 hours.

# Others hot-applied poliurea liquid membranes available: *MAXELASTIC*<sup>®</sup> *POLY* 600

Hot-applied, 100% solid, two-component sprayed pure aromatic polyurea membrane with high elongation for protection and waterproofing of structures.

#### MAXELASTIC® POLY EXP

Hot-applied, 100% solid, two-components, sprayed and expandable pure aromatic polyurea membrane for waterproofing and thermal insulation of structures.



# ADVANTAGES OF USE AND PROPERTIES

- O FORMS A CONTINUOUS COATING, WITHOUT OVERLAPS OR JOINTS. LIKEWISE, IT PERMANENTLY SEALS AND BRIDGES THE CRACKS, ADAPTING PERFECTLY TO THE GEOMETRY OF THE SUBSTRATE.
- O VERY FAST POLYMERIZATION WITH AN INSTANT TOUCH DRYING IN 5-7 SECONDS, WHICH ALLOWS HIGH YIELDS IN APPLICATIONS ON LARGE SURFACES, RESULTING IN AN OPTIMIZATION OF LABOR COSTS.
- O SUITABLE FOR APPLICATIONS WITH OPERATING TEMPERATURES FROM -40°C AND UP TO +180°C WHILE RETAINING ITS ELASTIC PROPERTIES WITHOUT BREAKAGE OR SOFTENING.
- O HIGH HARDNESS, GOOD MECHANICAL STRENGTH AND CHEMICAL RESISTANCE, PROVIDING GREAT STABILITY AND DURABILITY.
- O ADAPTABLE TO ANY TYPE AND NATURE OF SURFACES: CEMENT, CONCRETE, POLYURETHANE FOAM, FIBER CEMENT, WOOD, METAL ...
- O WIDE RANGE OF AESTHETIC FINISHES.

### **APPLICATION FIELDS**







BRIDGE DECKS



DRINKING WATER TANKS



SWIMMING POOLS AND CHEMICAL STORAGE BUNDS

### APPLICATION FIELDS

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### WATERPROOFING OF ROOFS - ETAG 005

MAXELASTIC® POLY system has the European Technical Assessment document (ETA 15/0111) in accordance with EU Regulation No. 305/2011, i.e. ETAG 005 for Liquid-Applied Roof Waterproofing Kits Based on Polyurea.

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- 4a) Pedestrian traffic: MAXELASTIC® PUR -E (2x 0,2-0,25 kg/m<sup>2</sup>)
- 4b) Wheeled traffic: MAXELASTIC® PUR -F  $(2x 0.2 - 0.25 \text{ kg/m}^2)$
- 4c) MAXURETHANE® 2C (2x 0,2-0,25 kg/m<sup>2</sup>)

#### 3.- POLYUREA MEMBRANE

**MAXELASTIC**<sup>®</sup> **POLY** (2,0 kg/m<sup>2</sup> - ETAG 005:  $\geq$  1,5 kg/m<sup>2</sup>) MAXELASTIC<sup>®</sup> POLY 600 (1,0-1,5 kg/m<sup>2</sup>) MAXELASTIC<sup>®</sup> POLY EXP (2,0 kg/m<sup>2</sup>)

#### 2.- PRIMER

2a) Polyurethane: *MAXURETHANE® PRIMER* (1x 0,25 kg/m<sup>2</sup>) 2b) Water-based Epoxy: MAXEPOX® PRIMER -W (1x 0,30 Kg/m<sup>2</sup>) 2c) Hot-applied polyurea: MAXELASTIC<sup>®</sup> POLY PRIMER (1x 0,3-0,5 Kg/m<sup>2</sup>)

#### 1.- SUBSTRATE

Concrete / Metal / Polyurethane foam / Fibrocement



### TREATMENT OF OUTSTANDING POINTS

CHIMNEYS, CORNERS AND PASSING PIPES **4.- ALIPHATIC PROTECTION** MAXELASTIC<sup>®</sup> PUR - E / MAXELASTIC<sup>®</sup> PUR - F / MAXURETHANE<sup>®</sup> 2C **3.- POLYUREA MEMBRANE** 

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- MAXELASTIC® POLY / MAXELASTIC® POLY 600
- 2.- PRIMER MAXURETHANE<sup>®</sup> PRIMER / MAXEPOX<sup>®</sup> PRIMER -W / MAXELASTIC<sup>®</sup> POLY PRIMER
- **1.- SUBSTRATE** Concave corner: MAXREST®/ MAXJOINT® ELASTIC
- **4.- ALIPHATIC PROTECTION** MAXELASTIC<sup>®</sup> PUR - E / MAXELASTIC<sup>®</sup> PUR - F / MAXURETHANE<sup>®</sup> 2C
- **3.- POLYUREA MEMBRANE** MAXELASTIC® POLY / MAXELASTIC® POLY 600
- 2.- PRIMER MAXURETHANE<sup>®</sup> PRIMER / MAXEPOX PRIMER -W / **MAXELASTIC® POLY PRIMER**
- **1.- ELASTOMERIC SEALANT** Polyurethane sealant: MAXFLEX® 100 W Polysulphide sealant: MAXFLEX® 900 Cement sealant: MAXJOINT® ELASTIC

# **APPLICATION FIELDS**

### WATERPROOFING OF BRIDGE DECKS – ETAG 033

Concrete bridge decks, exposed to water leaks through the asphalt agglomerate of the rolling layer, are susceptible to serious pathologies, from salts dissolved in the water and the subsequent occurrence of cracks, chips and/or disintegrations. **DRIZORO** has designed a system composed of the **MAXELASTIC® POLY** hot applied polyurea liquid membrane, which has European Technical Assessment document (ETA 17/0953) in accordance with EU Regulation No. 305/2011, i.e. ETAG 033 for *Liquid-Applied Bridge Deck Waterproofing Kits based on Pure Polyurea*.

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### ADVANTAGES OF THE SYSTEM

- O SUITABLE TO WITHSTAND STRONG MECHANICAL DEMANDS AND/O SUBSTRATE MOVEMENTS.
- O RESISTANT TO THERMAL IMPACT CAUSED BY OVERLAYING OF COARSE BITUMINOUS MIXTURES (>160°C).
- O EXCELLENT ADHESION TO CONCRETE SUBSTRATE AND ASPHALT LAYER.
- O EASE OF REPAIRS IN CASE OF BUMPS IN THE ASPHALT LAYER.





### **APPLICATION FIELDS**

### WATERPROOFING OF WATER TANKS, CHEMICAL STORAGE BUNDS, AND SWIMMING POOLS

The high stability for the **MAXELASTIC® POLY** membrane against exposure to strong chemicals allows to carry out the waterproofing of chemical storage bunds, containment areas or tanks of aggressive chemicals typical for food, pharmaceutical, steel or chemical industry in general. In addition, the technical approval for contact with water intended for human consumption makes **MAXELASTIC® POLY** a suitable system for waterproofing of drinking water tanks.



# PRIMERS

### MAXELASTIC® POLY PRIMER

HOT-APPLIED, 100% SOLID POLYURETHANE PRIMER FOR POLYUREA SYSTEMS.



3.- Polyurea membrane MAXELASTIC® POLY (2,0 kg/m<sup>2</sup>)

2.- Primer MAXELASTIC® POLY PRIMER (1x 0,3-0,5 kg/m²)

1.- Substrate preparation

#### MAXPRIMER® WET

100% SOLID EPOXY PRIMER FOR HIGH MOISTURE SUBSTRATES (UP TO 98%).





# **COLD-APPLIED POLYUREA SYSTEM DESCRIPTION**

**MAXELASTIC® POLY -M** is a cold-applied, two-component, aromatic polyurea membrane suitable for waterproofing and protection of concrete surfaces.

**MAXELASTIC® POLY -F** is a cold-applied, two-component, solvent-free, aliphatic poly-urea membrane.

#### ADVANTAGES OF USE AND PROPERTIES

- O High-performance waterproofing elastomeric membrane applied in a single coat. Forms a seamless continuous coating.
- **O** Faster curing time and return to service at 20°C compared to other systems:
  - MAXELASTIC<sup>®</sup> POLY -M: 12 h for pedestrian traffic & 48 h (24 h at 30°C) for water immersion conditions
  - MAXELASTIC® POLY -F: 8 h for pedestrian/light wheeled traffic & 24 h for heavy wheeled traffic/water immersion conditions
- Very good elasticity (500%) at both low and high temperatures. Very good crack bridging capability.
- O High tear strength and abrasion resistance.
- O Long lasting waterproofing membrane without maintenance.
- O Very good chemical resistance to water, seawater, wastewater, fuels, grease and oils, de-icing salts, diluted alkali and acid solutions, etc.
- MAXELASTIC<sup>®</sup> POLY -F. Total UV-resistance and colour stability, suitable fof waterproofing and protection for aromatic polyurea applied on outdoor áreas and/ or subject to traffic.



MAXELASTIC<sup>®</sup> POLY -F (1-2x 0,25-0,3 kg/m<sup>2</sup>)

3.- AROMATIC POLYUREA MEMBRANE

MAXELASTIC® POLY -M (1x 1,0-2,0 kg/m<sup>2</sup>)

#### 2.- PRIMER

Water-based Epoxy: **MAXEPOX® PRIMER -W** (1x 0,30 Kg/m<sup>2</sup>)

#### **1.- SUBSTRATE**

Concrete / Metal / Polyurethane foam / Fibrocement





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