



# **MAXELASTIC<sup>®</sup>**

## **POLY -MASTIC**

### **COLD-APPLIED POLYUREA SEALANT FOR JOINTS AND CRACKS IN FLOORS WITH OPENING TO TRAFFIC IN 2 HOURS**

#### **DESCRIPTION**

**MAXELASTIC<sup>®</sup> POLY -MASTIC** is a two-component, solvent-free (100% solids), cold-applied, polyurea-based sealant suitable for sealing of joints and cracks in concrete pavements, allowing the opening to traffic in 2 hours.

#### **APPLICATION FIELDS**

- Sealing of horizontal joints and cracks in industrial concrete floors, cargo areas, production areas, warehouses, public centres subjected to medium-heavy wheel traffic where an urgent opening to service (pedestrian traffic, forklifts, or heavy vehicles) is required.
- Sealing of isolation joints and control joints in pavements.
- Repair of holes, fissures, and other surface defects in concrete floors.

#### **ADVANTAGES**

- Fast curing time: Opening to service in 2 h.
- High resistance to UV rays and weathering.
- Great elongation at break (> 450%).
- High resistance to weights and loads, and to abrasion: suitable for the transit of heavy vehicles, industrial machinery, etc.
- No shrinkage.
- Very good chemical resistance to hydrocarbons, greases, diluted acids and alkalis.
- Free of harmful components, no VOC. Once applied, it does not release harmful substances into the environment

#### **APPLICATION INSTRUCTIONS**

##### **Surface preparation**

Joint edges must be structurally sound, clean, completely dry and free of dust, coatings, efflorescence, oil, grease, gypsum or any foreign material that could affect to adhesion. If necessary, clean surface by grinding, sandblasting, wire brushing, air compressed and use solvents or tensioactive agents for removing greases and oils.

In order to improve adhesion for **MAXELASTIC<sup>®</sup> POLY -MASTIC**, especially on porous concrete surfaces, apply by brush a primer coat of **PRIMER<sup>®</sup> 1** with a recommended consumption between 0,13-0,17 l/m<sup>2</sup>. Apply the sealant once primer has released the solvent but is still tacky, i.e., from 30 to 120 minute depending on temperature and humidity. After this time or if primer gets dry, apply a new primer coat.

To prevent staining the joint edges and provide a better finish, use a masking tape on joint edges before application.

Some concrete compounds or surface moisture may react with **MAXELASTIC<sup>®</sup> POLY -MASTIC** producing bubbles on surface. Testing on questionable substrates should be done to determine compatibility with sealant and if priming is needed.

##### **Joint design**

**MAXELASTIC<sup>®</sup> POLY -MASTIC** can be used for joints wherein the minimum and maximum width is between 8 mm and 40 mm respectively. Joint depth must be the half of joint width, with the exception of joint width under 15 mm, where the depth and width must be equal. Joint width should be at least four times than the maximum movement expected.

Use a closed cell polyethylene backer rod such as **MAXCEL®** with a diameter 25% larger than joint diameter, in order to control joint depth and to prevent bond on bottom. Do not wet **MAXCEL®** with **PRIMER® 1**.

## Mixing

**MAXELASTIC® POLY -MASTIC** is supplied in two-component pre-weight sets. Before use, stir separately both components using a slow speed drill (300-400 rpm) equipped with a fork-shaped whisk, during approximately 2 minutes, until achieving a homogeneous product in colour and appearance.

## Application

Both components for **MAXELASTIC® POLY -MASTIC** are poured directly in a cold-temperature, two-component extruding machine, and then mixed sealant is poured inside the joint and level it to form a clean joint bead. Remove the masking tape before curing process starts.

The levelling and subsequent smoothing of the sealant surface is carried out when the sealant begins to harden, using a spatula with a rounded profile so that the section is a concave shape.

## Application conditions

Do not apply when rain, contact with water, condensation, dampness, or dew is expected within the first 2 h.

Optimum application temperature is from 10°C to 30°C. Do not apply with substrate and/or ambient temperature at or below 5°C, or when such temperature is expected to fall below 5°C within the first 2 h. Do not apply to frozen or frost-covered surfaces.

The relative humidity should be less than 90% and surface/air temperature must be at least 3°C higher than dew point during the application and curing. Avoid applications with extreme temperatures, windy conditions and/or direct exposure to sunlight.

## Curing

Curing time for wheeled traffic (23°C and 50 % R.H.) is about 2 hours. Lower temperature and/or higher relative humidity will require longer curing times. This period must be extended in the case of large-sized joints.

## Cleaning

Tools and equipment can be cleaned with aliphatic solvent immediately after use. Once the product hardens, it can only be removed by mechanical methods.

## CONSUMPTION

The estimated consumption of **MAXELASTIC® POLY -MASTIC** depends on joint size and can be calculated from:

$$\text{Consumption (kg of sealant/lineal meter)} = 11 / [\text{Joint width (mm)} * \text{Joint depth (mm)}]$$

For a 10x10 mm joint, the estimated consumption is about 0,110 kg per 1 lineal meter of joint.

This estimated consumption may vary depending on roughness, porosity, surface conditions and application method. A preliminary test on-site will determine the coverage exactly.

## IMPORTANT INDICATIONS

- **MAXELASTIC® POLY -MASTIC** is not suitable for use in structural joints.
- Do not add solvents, admixtures, or other non-specified compounds to **MAXELASTIC® POLY -MASTIC**.
- Use **DRIZORO** primers recommended and allow the proper curing time between them.
- Once the metallic drums are opened, they must be consumed in their entirety.
- Prior use the component B, it must be mixed by mechanical means to get a homogeneous product in colour and appearance.
- The product may contain traces of silicone when opening the containers for the first time. These traces must be removed before homogenizing the components.
- Tests must be carried out before application to determine adhesion level depending on the substrate.
- Provide the width/depth joint design recommended.
- Avoid trapping air in joint during application.
- For joints wider than 4 cm, use the elastomeric strip **MAXFLEX® XJS**.
- For further information other uses not specified in this Technical Bulletin, consult our Technical Department.

## PACKAGING

**MAXELASTIC® POLY -MASTIC** is supplied in 40 kg metal drums pre-weight set (20 kg component A and 20 kg component B), and 120 kg set (60 kg component A, 60 kg component B). Available in colour grey.

## STORAGE

Twelve months in its original unopened packaging, kept in a dry and covered place, protected from frost, moisture and direct sunlight, with temperatures from 5°C to 35°C.

## SAFETY AND HEALTH

**MAXELASTIC® POLY -MASTIC** is a highly flammable product and all regulatory precautions regarding handling, transport and storage related to this type of product must be observed. Keep away from heat and all sources of ignition and do not smoke. The mixer, like all other electrical devices used in the place of application, must be explosion-proof. Provide adequate ventilation to prevent the accumulation of vapours. Do not inhale the vapours that may be produced by heating the product.

Avoid contact with skin and eyes. Wear rubber gloves and safety goggles for application. In case of contact with the skin, wash the affected area with soap and abundant water. In case of contact with the eyes, rinse immediately with plenty of clean water without rubbing. If irritation persists, seek for medical assistance.

Consult the Safety Data Sheet of **MAXELASTIC® POLY -MASTIC**.

Disposal of the product and its packaging must be carried out according to the current official regulations and it is responsibility of the final user of the product.

## TECHNICAL DATA

Product characteristics	
Appearance and colour (Comp. A + Comp. B)	Grey putty
Density for Comp. A, (g/cm <sup>3</sup> )	1,11 ± 5%
Density for Comp. B, (g/cm <sup>3</sup> )	1,09 – 1,12 ± 5%
Viscosity (S63, 30 rpm at 23°C) ISO 2555, Comp. A, (cps)	900 ± 50
Viscosity (S63, 30 rpm at 23°C) ISO 2555, Comp. B, (cps)	650 ± 50
A:B mixing ratio, (weight)	100 / 100
A:B mixing ratio, (volume)	100 / 102
Application and curing conditions	
Max. joint width, (mm)	40
Joint design ratio (width:depth)	2:1
Max. Temperature for substrate, (°C)	> 5
Drying time to touch at 23°C & 50% R.H., (min)	± 15
Total curing time at 23°C & 50% R.H., (h)	2
Characteristic for cured products	
Hardness Shore A, ISO 868	> 90
Hardness Shore D, ISO 868	> 40
Elasticity modulus at 100%, ISO 527 (MPa)	18,6
Elongation at break, ISO 527 (%)	> 450
Tensile strength, EN ISO 527 (MPa)	> 10
Shrinkage after curing, ISO 10563	No
COV, (%)	0
Service temperature, (°C)	5 ≤ T ≤ 35

## 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.



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