

## MARIFLEX® PU 40

TECHNICAL DATA SHEET

Date: 01.06.2017 – Version 17

### High Modulus polyurethane Joint-Sealant / Adhesive One component Mastic

#### Product description

The MARIFLEX® PU 40 is a thixotropic, permanent elastic, cold applied and cold curing, one component, low modulus polyurethane elastomer (mastic) used for chalking and joint-sealing.

Cures by reaction with ground and air moisture.

#### Advantages

- Simple application.
- UV and weathering resistant.
- Resistant to constant movement.
- Resistant to water, heat and frost.
- Maintain its mechanical properties over a temperature span of -30°C to +90°C
- Provides excellent adhesion to most construction materials
- Resistant to detergents, oils, fuels and seawater

#### Uses

The MARIFLEX® PU 40 is used for:

- Joint sealing of control joints.
- Crack filling mastic.
- Adhesive between various construction materials

#### Consumption

Consumption depends on volume of the joint or crack to be sealed.

#### Colors \*\*

The MARIFLEX® PU 40 is supplied in white and light grey. Other RAL colors may be supplied on demand.

#### Technical Data \*

| PROPERTY                             | RESULTS                                                                                                                                                                                                                                                                                                   | TEST METHOD            |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Composition                          | Polyurethane mastic (pre-polymer)                                                                                                                                                                                                                                                                         |                        |
| Elongation at Break                  | 400%                                                                                                                                                                                                                                                                                                      | ISO 8339               |
| E-Modulus                            | 0,5 MPa                                                                                                                                                                                                                                                                                                   | ISO 8339               |
| Elastic recovery                     | > 70%                                                                                                                                                                                                                                                                                                     | ISO 7389               |
| Hardness (Shore A Scale)             | 40                                                                                                                                                                                                                                                                                                        | DIN 53505, ASTM D 2240 |
| Application Temperature              | 5°C to 35°C                                                                                                                                                                                                                                                                                               |                        |
| Skin formation time                  | 15 min (at 23oC, 50%RH)                                                                                                                                                                                                                                                                                   |                        |
| Polymerized thickness after 24 hours | 3 mm (at 23oC, 50%RH)                                                                                                                                                                                                                                                                                     |                        |
| Resistance to flow at 23oC           | <3mm                                                                                                                                                                                                                                                                                                      | ISO 7390               |
| Resistance to flow at 50oC           | <3mm                                                                                                                                                                                                                                                                                                      | ISO 7390               |
| Chemical Properties                  | Good resistance against water, cleaning agents, and accidental spray with oils, hydrocarbons, acidic and basic solutions (10%).<br>Due to the sensitivity of polyurethane to UV rays, light shades change color. This change in appearance does not modify their mechanical properties or leak tightness. |                        |

CONSTRUCTION



## Application

### Surface Preparation

The surface needs to be clean, dry and sound, free of oils or any contamination, which may harmfully affect the adhesion of the mastic. Remove all loose material. Concrete surfaces must be dry and stable (at least 28 days). Moisture content should not exceed 5%.

Users must check that the mastic is compatible with the surface in terms of adhesiveness, staining and chemical compatibility (test a section first).

### Making the joint:

Correctly size the joint. We recommend a width between 10 and 30 mm. The Width / depth ratio of the joint should be about 2:1.

### Movement joint sealing for Roof waterproofing purposes:

Apply some MARIFLEX® PU 40 Joint-Sealant on the bottom of the joint only. Then with a brush, apply a stripe layer of MARISEAL® 250, 200mm wide centered over the joint. Place the MARISEAL® FABRIC over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough MARISEAL® 250. Then place a polyethylene cord of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint with MARIFLEX® PU 30 sealant and allow 12 hours to cure.

### Priming

Priming is only necessary when adhesion test has shown poor adhesion. In this case prime absorbent surfaces, like concrete, screed and wood with MARISEAL® 710 primer. Prime non-absorbent surfaces like metal and ceramic tiles with MARISEAL® AQUA PRIMER.

### Sealing

After the primer has dried, press a flexible, non-adhesive joint filler (polyethylene cord), in the joint. The joint filler should be free of holes to ensure that bubbles do not form in the joint.

Apply the MARIFLEX® PU 40 mastic by hand pistol or pneumatic guns (maximum required pressure : 3,5 kg).

When applying avoid air entrapment. Smooth with joint nail or putty knife. For a better finish, use protection strips.

For narrow joints, apply the mastic in one movement. For very wide joints, apply the mastic in three places: the first two on the edges of the joint and the third on the filler. Smooth out with soapy water. Press the mastic against the edges and the joint filler while taking care not to create air bubbles. Remove protection strips.

May be painted after polymerization is complete. Use acrylic or vinyl dispersion paints after testing a section.

### Packaging

MARIFLEX® PU 40 is supplied in 310ml Cartridges and 600ml Aluminium Bags. Bags and Cartridges should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5<sup>o</sup>-30<sup>o</sup>C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

### Safety measures

MARIFLEX® PU 40 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.

Our technical advice for use, whether verbal, written or in tests, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We are liable only for our products being free from faults; correct application of our products therefore falls entirely within your scope of liability and responsibility. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

\* All values represent typical values and are not part of the product specification. \*\*: The applied sealant might yellow and/or fade upon UV exposure.