



# Mapeflex PU 70 SL

**2-component free-flowing elastic polyurethane sealant for joints in contact with hydrocarbons**



## WHERE TO USE

Sealing expansion and contraction joints in floorings that come into accidental or intermittent contact with benzenes, diesel fuel, jet fuel, lubricants and de-icing substances, including those used by slow-moving vehicles.

### Some application examples

- Sealing joints in runways.
- Sealing joints in car parks, service areas and mechanical workshops.
- Sealing joints in roads, courtyards, ports, logistics areas and areas in general with moving vehicles.
- Sealing run-off tanks used in refineries, fuel storage depots and the petrochemical industry.

## TECHNICAL CHARACTERISTICS

**Mapeflex PU 70 SL** is a highly-deformable sealant with low modulus of elasticity characterised by 2 pre-dosed components which are mixed together before pouring into horizontal joints with up to 2.5% slope.

**Mapeflex PU 70 SL** sets after around 24-36 hours at +23°C through a chemical reaction with the catalyser to form a deformable, elastic rubber that adheres well to the substrate and compensates for compressive, tensile and torsional stresses in joints, while providing excellent resistance to abrasion and chemical resistance to most types of hydrocarbons.

**Mapeflex PU 70 SL** is resistant to service temperatures of -30°C to +70°C and to temperatures of up to +150°C for brief periods.

**Mapeflex PU 70 SL** complies with Federal Specification SS-S-200E and BS 5212.

## RECOMMENDATIONS

- Do not apply on damp or wet surfaces.
- Do not apply on bituminous surfaces with oil bleeding.
- Do not apply if the temperature is lower than +10°C. In cold weather, or to help the product set more quickly, please contact MAPEI Head Office.

## APPLICATION PROCEDURE

### Mixing the sealant

**Mapeflex PU 70 SL** is supplied in the form of two pre-dosed components at a ratio of 66 : 34 by weight (component A resin 6.60 kg, component B catalyser 3.40 kg).

Mix components A and B separately, especially when stored at low temperature.

Slowly pour component B into the container of component A and mix together for several minutes without entraining air into the mix. Use a drill at low speed with a suitable mixing attachment for at least 2 minutes until a free-flowing, even coloured mix is formed.

The workability and setting times of the mix are heavily influenced by the surrounding temperature: as a rough guide, the mixed product remains workable for around 45 minutes at +23°C.

Never use partial quantities of the pre-dosed components unless you use high-precision electronic scales to respect the weight ratio of 66 : 34 (component A : component B).

### Application

- All the surfaces to be sealed must be dry, sound and free of all traces of dust, loose portions, cement laitance, oil, grease, wax, old sealant and paint, rust, form-release compounds and anti-evaporation products.
- The joints must be designed so that the amount of movement when in service is a maximum of 25% of its initial width.

To set the depth of **Mapeflex PU 70 SL** and prevent it from adhering to the bottom of the joint, insert **Mapefoam** compressible, expanded foam cord along the bottom of the joint. The diameter of the cord should be 10-20% higher than the maximum width of the joint to be sealed so that it holds its position inside the joint.

- Set the depth of the sealant according to the width of the joint to be sealed as indicated in the table below:

| width of joint  | depth of sealant   |
|-----------------|--------------------|
| up to 10 mm     | same as width      |
| 11 to 20 mm     | 10 mm in all cases |
| more than 20 mm | half the width     |

- Brush-apply **Primer PU60** or **Primer M** along the edges of the joint. The primer must be dry to the touch before applying **Mapeflex PU 70 SL**.
- Joints are normally filled with **Mapeflex PU 70 SL** manually by pouring or with a suitable pump (contact Head Office for further information). Position masking tape along the edges of the joint if a more attractive, perfect finish is required.

Remove excess sealant from the edges of the joint and the masking tape, if used, while the product is still fresh.

### CONSUMPTION

The density of **Mapeflex PU 70 SL** is 1.45 g/cm<sup>3</sup>.

Consumption rates for various sizes of joints are indicated in table 1 below.

### Cleaning

Remove **Mapeflex PU 70 SL** from surfaces, tools, clothing etc. with **MAPEI Thinner for Adhesives**, nitro solvent or turpentine before it sets. Once set it must be removed mechanically or with **Pulicol 2000**.

### PACKAGING

**Mapeflex PU 70 SL** is available in 10 kg kits (A+B).

### STORAGE

12 months in its original sealed containers.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Mapeflex PU 70 SL** component A is not considered dangerous according to the current regulation regarding the classification of mixtures.

**Mapeflex PU 70 SL** component B is irritant for the eyes and the respiratory tract, it may cause sensitization if it comes in contact with the skin of those sensitive to isocyanates. Furthermore, it may cause irreversible damage if used for lengthy periods.

Component B may cause sensitization if inhaled at temperatures above +60°C. In the event of sickness seek medical attention.

During use, wear protective clothes, gloves, safety goggles and a safety mask to protect the respiratory tract, and work only in well-ventilated areas. Furthermore, it is recommended to prevent breastfeeding mothers from using the product.

**Mapeflex PU 70 SL** component B is dangerous for aquatic life. Do not dispose of it in the environment.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT ONLY FOR PROFESSIONAL USE.

Table 1

| width of joint (mm)                                | 5     | 10    | 15    | 20    | 25    | 30    | 35    | 40     |
|--|-------|-------|-------|-------|-------|-------|-------|--------|
| depth of sealant (mm)                              | 5     | 10    | 10    | 10    | 12.5  | 15    | 17.5  | 20     |
| Ø MAPEFOAM (mm)                                    | 6     | 15    | 20    | 25    | 30    | 40    | 40    | 2 x 20 |
| consumption of sealant (kg/metre)*                 | 0.04  | 0.15  | 0.22  | 0.29  | 0.45  | 0.65  | 0.89  | 1.16   |
| metres of sealant per 10 kg kit                    | 276   | 69    | 46    | 34    | 22    | 15    | 11    | 9      |
| consumption of PRIMER PU60 or PRIMER M (kg/metre)* | 0.004 | 0.013 | 0.011 | 0.029 | 0.045 | 0.065 | 0.089 | 0.116  |

\* theoretical consumption rates without waste

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

|                                      | component A                         | component B                  |
|--------------------------------------|-------------------------------------|------------------------------|
| <b>Colour:</b>                       | black                               | yellowish                    |
| <b>Consistency:</b>                  | thick paste                         | liquid                       |
| <b>Density (g/cm<sup>3</sup>):</b>   | 1.60                                | 1.25                         |
| <b>Brookfield viscosity (mPa·s):</b> | 500,000<br>(T-E spindle - 2.5 revs) | 150<br>(spindle 1 - 50 revs) |
| <b>Dry solids content (%):</b>       | 97                                  | 100                          |

### APPLICATION DATA (at +23°C and 50% R.H.)

|   |                                     |
|---|-------------------------------------|
| <b>Mixing ratio:</b>                      | component A : component B = 66 : 34 |
| <b>Consistency of mix:</b>                | free-flowing fluid paste            |
| <b>Colour of mix:</b>                     | black                               |
| <b>Density of mix (kg/m<sup>3</sup>):</b> | 1450                                |
| <b>Brookfield viscosity (mPa·s):</b>      | 30,000<br>(spindle 7 - 20 revs)     |
| <b>Workability time:</b>                  | 45 mins.                            |
| <b>Application temperature range:</b>     | +5°C to +35°C                       |
| <b>Setting time:</b>                      | 10 h                                |
| <b>Passable by light weight vehicles:</b> | after 24 hours                      |
| <b>Final hardening time:</b>              | 7 days                              |

### FINAL PERFORMANCE

|  |     |
|--|-----|
| <b>Shore A hardness:</b>                               | 18  |
| <b>Tensile strength (ISO 8339) (N/mm<sup>2</sup>):</b> | 0.6 |
| <b>Elongation at failure (ISO 8339) (%):</b>           | 300 |
| <b>Modulus at 100% (ISO 8339) (N/mm<sup>2</sup>):</b>  | 0.3 |
| <b>Elongation in service (continuous service) (%):</b> | 25  |

# Mapeflex PU 70 SL



## **WARNING**

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)

## **LEGAL NOTICE**

The contents of this Technical Data Sheet ("TDS") may be copied into another

project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website [www.mapei.com](http://www.mapei.com).

**ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**