# MAPEFLEX PU 70 SL

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






## WHERE TO USE

Sealing expansion and contraction joints in concrete flooring that come into accidental or intermittent contact with petrol, diesel fuel, aviation spirit, 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 industries.

## TECHNICAL CHARACTERISTICS

**Mapeflex PU 70 SL** is a highly-deformable sealant with low modulus of elasticity composed of two pre-dosed components, to be mixed together and poured 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 the case of application at lower temperatures, or if a quicker product hardening is needed, please contact Mapei Technical Service.

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# 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).
Stir components A and B separately, especially when stored at low temperatures.
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 pot life and setting times of the mix are heavily influenced by the surrounding temperature: indicatively, the mixed product can be applied within approx. 45 minutes at +23°C.
Do not use partial quantities of the pre-dosed components unless a high-precision electronic scale is used 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% larger 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** along the edges of the concrete joint. The primer must be dry to the touch before applying **Mapeflex PU 70 SL**.
When bonding to bituminous conglomerate substrates, prime the surface beforehand with **Primer SN** (Tests carried out on a bituminous conglomerate wear layer according to EN 12697/33 standards).
Joints are normally filled with **Mapeflex PU 70 SL** manually by pouring or with a suitable pump (contact Mapei Technical Service 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$^3$.
Consumption rates for various sizes of joints are indicated in table 1 below.

## Table 1

| width of the 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 (kg/metre)* | 0.004 | 0.013 | 0.011 | 0.029 | 0.045 | 0.065 | 0.089 | 0.116 |

** theoretical consumption rates without waste*

## 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 at a temperature between +5°C and +35°C.
Protect from frost.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

| PRODUCT IDENTITY | | |
|---|---|---|
| | component A | component B |
| Colour: | black | yellowish |
| Consistency: | thick paste | liquid |
| Density: | 1.60 g/cm³ | 1.25 g/cm³ |
| Brookfield viscosity: | 500,000 mPa·s (T-E spindle - 2.5 revs) | 150 mPa·s (spindle 1 - 50 revs) |
| Dry solids content (%): | 97% | 100% |

| APPLICATION DATA (at +23°C and 50% R.H.) | |
|---|---|
| Mixing ratio: | component A : component B = 66 : 34 |
| Consistency of mix: | free-flowing fluid paste |
| Colour of mix: | black |
| Density of mix: | 1450 kg/m³ |
| Brookfield viscosity: | 30,000 mPa·s (spindle 7 - 20 revs) |
| Workability time: | 45 mins. |
| Application temperature range: | +5°C to +35°C |

| | |
|---|---|
| Setting time: | 10 h |
| Passable by light weight veichles: | after 24 hours |
| Final hardening time: | 7 days |

| FINAL PERFORMANCE | |
|---|---|
| Shore A hardness: | 18 |
| Tensile strength (ISO 8339): | 0.6 N/mm² |
| Elongation at failure (ISO 8339): | 300 % |
| Modulus at 100% (ISO 8339): | 0.3 N/mm² |
| Elongation in service (continuous service): | 25% |

## 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**

## 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.***
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