



Mapeflex PU 70 NS

Two-component thixotropic elastic polyurethane sealant for joints in contact with hydrocarbons



WHERE TO USE

Sealing expansion and contraction vertical joints that come into accidental or intermittent contact with gasoline fuels, diesel fuel, jet fuel, lubricants, hydrocarbon derivatives and de-icing substances.

Some application examples

- Vertical and horizontal sealing of run-off tanks used in refineries, fuel storage depots and the petrochemical industry.
- Sealing of joints in car parks, service areas and mechanical workshops.
- Sealing of joints in contact with hydrocarbons.

TECHNICAL CHARACTERISTICS

Mapeflex PU 70 NS is a highly-deformable sealant with low modulus of elasticity characterised by 2 pre-dosed components which are mixed together before applying into vertical and horizontal joints. The product can be applied by filling the joints with a spatula or using a suitable extrusion gun.

Mapeflex PU 70 NS 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 NS is resistant to service temperatures

of -30°C to +70°C and to temperatures of up to +150°C for brief periods.

RECOMMENDATIONS

- Do not apply on damp or wet surfaces.
- Do not apply on bituminous surfaces with potential 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

Preparation of the mix

Mapeflex PU 70 NS is supplied in a kit containing two pre-dosed components at a ratio of 90 : 10 by weight (component A resin 4.50 kg, component B catalyser 0.50 kg).

Stir 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 some minutes without entraining air into the mix. Use a drill at low speed with a suitable mixing attachment for at least three minutes until a homogeneous, even coloured mix is formed.

The pot life 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.

Mapeflex PU 70 NS

Never use partial quantities of the pre-dosed components unless you use high-precision electronic scales to respect the weight ratio of 90 : 10 (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 average width.

To set the depth of **Mapeflex PU 70 NS** 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 M** along the edges of the joint. The primer must be dry to the touch before applying **Mapeflex PU 70 NS**. Joints are normally filled with **Mapeflex PU 70 NS** manually by filling the joint with a spatula or a trowel (with suitable size and shape) or with a suitable extrusion device (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 NS** is 1.55 g/cm³.

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	0,16	0,23	0,32	0,48	0,70	0,95	1,24
Metres of sealant per 5 kg kit	125	31	22	15	10	7	5	4
Consumption 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

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

Cleaning

Remove **Mapeflex PU 70 NS** 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 NS is available in 5 kg kits (A+B).

STORAGE

12 months in its original sealed containers.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeflex PU 70 NS component A is not considered dangerous according to the current regulations regarding the classification of mixtures.

Mapeflex PU 70 NS component B is harmful if swallowed, it is irritant for the eyes, the skin and the respiratory tract. It may cause sensitization if it comes in contact with the skin of those subjects sensitive to isocyanates. Furthermore, it may also cause irreversible damage if used for lengthy periods. At temperatures above +60°C the product can give off vapours that may cause sensitization if inhaled.

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.

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

RESTRICTED TO PROFESSIONAL USERS.

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

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	component A	component B
Colour:	black	yellowish
Consistency:	thixotropic paste	liquid
Density (g/cm³):	1.60	1.25
Brookfield viscosity (mPa·s):	2,500,000 (T-E spindle - 2.5 revs)	80 (spindle 1 - 50 revs)
Dry solids content (%):	100	100

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

Mixing ratio:	component A : component B = 90 : 10
Consistency of mix:	thixotropic paste
Colour of mix:	black
Density of mix (kg/m³):	1550
Brookfield viscosity (mPa·s):	600,000 (spindle F - 5 revs)
Workability time:	45 min.
Application temperature range:	from +5°C to +35°C
Setting time:	10 h
Set for traffic:	after 24 h
Final hardening time:	7 days

FINAL PERFORMANCE

Shore A hardness:	30
Tensile strength (ISO 8339) (N/mm²):	0.7
Elongation at failure (ISO 8339) (%):	150
Modulus at 100% (ISO 8339) (N/mm²):	0.6
Elongation in service (continuous service) (%):	25

**Mapeflex
PU 70 NS**

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.

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

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

8107-4-2019 (GB)



BUILDING THE FUTURE