

Mapeflex PU 15

low modulus elastic PU sealant for joints

WHERE TO USE

Mapeflex PU S15 has been developed for sealing expansion and contraction vertical joints for inside or outside application.

Some application examples

Sealing internal and external joints subject to movement up to 25% in:

- facades on civil and industrial buildings
- pre-fabricated concrete panels
- general use in construction application where the use of a gun grade product is required

TECHNICAL CHARACTERISTICS

Mapeflex PU S15 is a single component, gun grade, easy-to-apply polyurethane-based sealant with a low modulus of elasticity, made according to a formula developed in MAPEI's own R&D laboratories.

Mapeflex PU S15 hardens following its reaction with the humidity in the surrounding air and, because of its special characteristics, offers a guarantee of a long service life. The product is ready to use and is available in 600 ml soft cartridges to be used with manual/air pressure extrusion gun, which makes the product particularly easy and fast to use.

Because of its thixotropic consistency, it is quick to apply and once hardened, may be painted over (make specific tests before)

Mapeflex PU S15 is classified as F - 25LM according to ISO 11600 Standards

RECOMMENDATIONS

- Do not use on dusty or flaky surfaces.
- Do not use on surfaces which are damp or wet.
- Do not use on surfaces which are dirty with oil, grease or stripping compounds.
- Do not use on bituminous surfaces where the bleeding of oil may be present.
- Do not apply **Mapeflex PU S15** if the temperature is lower than +5°C.

APPLICATION PROCEDURE

Preparation of the surface to be sealed

All the surfaces to be sealed must be dry, sound and free of dust, crumbly parts, oil, grease, wax and old paint. To guarantee that the sealant works correctly, the joint must be free to stretch and shrink. Therefore, it is important that **Mapeflex PU S15** only bonds perfectly to the side walls of the joint, and must not touch the bottom.

The size of the joint must be calculated so that, when in service, it compensates $\pm 25\%$ of its initial size.

To regulate the depth of **Mapeflex PU S15** and to avoid it sticking to the bottom of the joint, **Mapefoam** closed-cell, expanded polyurethane flexible cord with a suitable diameter must be inserted beforehand in the joint. The depth of the sealant is defined according to the following rule:

width/depth ratio table

Dimensions of the joint	Width	Depth
Up to 10 mm	1	1
From 10 to 20 mm		10 mm
From 20 to 40 mm	1	0,5

To avoid the sealant spreading out of the joint, and to leave an attractive finish, we recommend using masking tape around the joints.

Mapeflex PU S15 bonds well on absorbent substrates even without the use of a primer if they are solid, free of dust and perfectly clean and dry. We recommend applying **Primer M** in case of slightly powdery surface or if the joints are subject to high mechanical stress or frequent and prolonged contact with liquids.

We also recommend applying **Primer M** on cementitious surfaces which are still fresh or to improve adhesion in case of non absorbent substrates like iron, steel, aluminium, copper, ceramic, glass or zinc-plated or painted sheet.

Application of Primer M

Using a brush, apply a thin, uniform layer of **Primer M** primer single component, solvent-free polyurethane primer for non-absorbent surfaces around the edges of the joint. The successive application of sealant must only be carried out once the primer is no longer sticky (after approximately 40 minutes at +23°C and 50% R.H).

Preparation and application of Mapeflex PU S15

Use specific manual or air pressure caulking guns for 600 ml soft cartridges.

Consumption

According to the size of the joint. Consult the table below for consumption of the product:

Consumption table for 600 ml soft cartridge

Size of the joint in mm	Metres in length
5 x 5	24
10 x 10	6
15 x 7.5	5.3
20 x 10	3
25 x 12.5	1.9
30 x 15	1.3

Cleaning

Mapeflex PU S15 may be removed from surfaces, tools, clothing etc. with toluene or alcohol before the hardening reaction takes place. After hardening, it may only be removed mechanically or with **Pulicol**.

Packaging

Boxes of 20 (600 ml soft cartridges) units.

Colors available

Mapeflex PU S15 is available in light grey (other colors available upon request).

Storage

Mapeflex PU S15 may be stored for up to 12 months in a cool, dry place (+5/+25°C @ 50% RH).

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeflex PU S15 is harmful, and may cause sensibilization if inhaled by those who are allergic. When handling the product, use protective goggles and gloves, and make sure the area is well ventilated. Seek medical attention in the case of giddiness or fainting. Further information is available on the product's Safety Data Sheet.

FOR PROFESSIONALS USE.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY TECHNICAL DATA (typical values)

Appearance:	thixotropic paste
Colour:	different colors
Density (g/cm ³):	1.45
Dry solids content (%):	100
Helipath viscosity at +23°C (mPa•s):	900,000 (spindle F – 5 RPM)

Storage in its original, unopened packaging: 12 months

Hazard classification according to EC 1999/45: harmful

Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet

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

Recommended application temperature range:	from +5°C to +40°C
Dust dry:	after 2 hours
Final setting after:	2 mm/24 hrs

FINAL PERFORMANCE (after 7 days at 23°C)

Shore A hardness (DIN 53505):	15
Tensile strength (DIN 53504S3a) (N/mm ²):	1.0
Elongation at breakage (DIN 53504S3a) (%):	1,600
In service temperature:	from -40°C to +70°C
Resistance to UV rays:	clear colors yellowish under UV rays
Elongation in service (continuous use) (%):	± 25
Classification according to ISO 11600:	class F - 25LM
Modulus of elasticity at +23°C (ISO 8339) (N/mm ²):	0.30