



Mapeflex PU55 SL

One-component, fluid, polyurethane sealant, with a high modulus of elasticity, for flooring joints subject to movement up to 7.5%



WHERE TO USE

Mapeflex PU55 SL has been specially developed for internal and external use to seal expansion and construction joints in horizontal surfaces (even those which are subject to occasional chemical attack to hydrocarbons), and for sealing joints in industrial floors.

Some application examples

- Sealing the surface of expansion and distribution joints in concrete industrial floors, including areas subjected to heavy traffic such as industrial environments with forklift truck traffic.
- Sealing distribution joints in ceramic and stone floors, including areas subjected to heavy traffic, such as supermarkets, industrial environments with forklift truck traffic, pedestrian crossings, arcades, etc.
- Sealing joints in indoor and outdoor car parks.
- Flexible sealing around pipe-work, waste pipes, manholes, etc.
- Sealing expansion joints on terraces with ceramic tiled floors.
- Sealing expansion joints in floors where **Mapefloor System** products have been applied.

TECHNICAL CHARACTERISTICS

Mapeflex PU55 SL is a one-component, polyurethane-based sealant with a high modulus of elasticity, which is

easy to apply, made according to a formula developed in MAPEI's own Research and Development Laboratories.

Mapeflex PU55 SL is classified F-7.5-HM, according to ISO 11600.

Mapeflex PU55 SL hardens following its reaction with humidity in the surrounding air and, because of its special characteristics, it offers the guarantee of a long service life. It may only be used on horizontal surfaces or on surfaces with slope up to 2%.

The product is ready-to-use and available in aluminium soft cartridges, it is also equipped with a special applicator which makes it particularly easy to use.

Mapeflex PU55 SL has fluid consistency for quick applications and, thanks to its quick-hardening characteristics (approx. 2 mm every 24 hours), the surface may be quickly put into service with economic advantage.

RECOMMENDATIONS

- Do not use on dusty or flaky surfaces.
- Do not use on dump surfaces.
- Do not use on surfaces which are dirty with oil, grease or form-release compounds, as bonding could be compromised.

- Do not use on bituminous surfaces where bleeding of oil may occur.
- Do not apply **Mapeflex PU55 SL** if temperature is lower than +5°C.
- Use **Mapeflex PU45** on vertical surfaces.

APPLICATION PROCEDURE

Preparation of surface to be sealed

All surfaces to be sealed must be dry, sound and free of dust, laitance, oil, grease, wax and old paint.

To guarantee that the sealant functions correctly, it must be free to stretch and expand in the joint. Therefore, it is important that it perfectly bonds only to the edges of the joint, without touching the bottom.

The joint size must be calculated so that, when in service, it expands less than or equal to 7.5% of its initial size.

To regulate the depth of **Mapeflex PU55 SL** and to avoid adhesion to the bottom of the joint, **Mapefoam** closed-cell expanded polyethylene flexible cord must be inserted beforehand in the joint.

Define sealant depth according to the table below:

Width/depth ratio		
Joint size	Width	Depth
Up to 10 mm	1	1
From 10 to 30 mm	2	1

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

Application of Primer AS or Primer M

Mapeflex PU55 SL bonds extremely well to most types of absorbent and non-absorbent substrate, as long as they are dry, cured and free of dust.

As a result, **Primer AS** does not need to be applied before using **Mapeflex PU55 SL** to seal joints in concrete, mortar, wood, natural stone and terracotta which are not subject to high mechanical stresses. If joints are subject to frequent and prolonged contact with liquids or high mechanical stresses, apply **Primer AS**, single component, transparent, epoxy-isocyanate primer on the walls of the joint with a brush, in one or two coats dependant on the absorbency of the substrate.

Only apply the sealant when the primer is no longer tacky (approx. 60 min. at +23°C and 50% R.H.).

If the product is applied on non-absorbent surfaces, such as iron, steel, aluminium, copper, ceramic, klinker, glass or zinc-coated or painted sheet steel, we recommend applying a thin, uniform coat of **Primer M** single component, solvent-free polyurethane primer around the edges of the joint with a brush.

The sealant must only be applied once the primer is no longer sticky (after approximately 40 minutes at +23°C and 50% R.H.).

Preparation and application of Mapeflex PU55 SL

Mapeflex PU55 SL comes in 600 ml soft cartridges. Insert the cartridge of **Mapeflex PU55 SL** in the special sealant gun, cut off the tip and inject the product into the joint.

CONSUMPTION

The consumption of **Mapeflex PU55 SL** varies according to the joint size.

Refer to the consumption table below:

CONSUMPTION TABLE	
Joint size (mm)	Length (m)
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 PU55 SL may be removed from surfaces, tools, clothing, etc. with toluol or alcohol before the hardening reaction takes place. After hardening, it may only be removed mechanically or with **Pulicol**.

PACKAGING

Boxes containing 20 pieces (600 ml soft cartridges).

COLOURS AVAILABLE

Mapeflex PU55 SL is available in grey.

STORAGE

Mapeflex PU55 SL may be stored for 12 months in a cool, dry place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeflex PU55 SL is harmful, it may cause sensitization by inhalation to those predisposed.

The product may also cause serious damage in case of eye contact.

We recommend that the vapour given off is not inhaled and that protective gloves and goggles are always used when applying the product.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Appearance:	self-levelling
Colour:	grey
Density (g/cm³):	1.22
Solids content (%):	100
Brookfield viscosity after 1 day at +23°C and 50% R.H. (mPa·s):	45,000 ± 5,000
Storage:	12 months in its original, unopened packaging
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
Customs class:	3909 50 00

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

Application temperature range:	from +5°C to +35°C
Dust dry:	3 hours
Final setting:	after 24 hours (for a 2 mm thick joint)
Set to light foot traffic:	depending on the joint depth

FINAL PERFORMANCES

Shore-A-hardness (DIN 53505):	40
Tensile strength (DIN 53504S3a) (N/mm²): - after 7 days at 23°C:	1.5
Elongation at breakage (DIN 53504S3a) (%): - after 7 days at 23°C:	550
Resistance to UV:	excellent
In service temperature:	from -10°C to +70°C
Elongation in service (continuous use) (%):	7.5
Classification according to ISO 11600:	class F-7.5-HM

**Mapeflex
PU55 SL**

In case of contact with eyes or if you feel unwell, seek medical advice.

For further information refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL 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.

**All relevant references
for the product are available
upon request and from
www.mapei.com**



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