

Mapeflex PU55 SL

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



WHERE TO USE

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

Some application examples

- Sealing the surface of expansion and distribution joints in concrete industrial floors, even in areas subjected to heavy traffic such as industrial environments with the movement of forklift trucks.
- Sealing distribution joints in ceramic and stone floors, even in areas subjected to heavy traffic, such as supermarkets, industrial environments with the movement of forklift trucks, pedestrian crossings, arcades, etc.
- Sealing joints in indoor car parks.
- Flexible sealing around pipe-work, waste pipes, manholes, etc.
- Sealing expansion, joints in 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 hardens following its reaction with the humidity in the surrounding air and, because of its special characteristics, offers the guarantee of a long service life. It may only be used on horizontal surfaces, or on surfaces with a slope up to 2%.

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

The product has a fluid consistency for quick application and, thanks to its quick-hardening characteristics (approx. 2 mm every 24 hours), the surface may be put into service quickly with resulting economic advantages.

RECOMMENDATIONS

- Do not use on dusty or flaky surfaces.
- Do not use on surfaces which are too damp.
- Do not use on surfaces which are dirty with oil, grease or form-release compounds as the bonding could be compromised.
- Do not use on bituminous surfaces where the bleeding of oil may occur.
- Do not apply **Mapeflex PU55 SL** if the temperature is lower than +5°C.

- On vertical surfaces, use **Mapeflex PU30**.

APPLICATION PROCEDURE

Preparation of the surface to be sealed

All the surfaces to be sealed must be dry, sound and free of dust, laitences, 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 only bonds perfectly to the edges of the joint and must not touch the bottom.

The size of the joint 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 its adhesion to the bottom of the joint, **Mapefoam** closed-cell expanded polyethylene flexible cord with a suitable diameter must be inserted beforehand in the joint.

The depth of the sealant is defined according to the table below:

Width/depth ratio		
Size of the joint	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 leave an attractive finish, we recommend using masking tape around the joints.

Application of Primer AS

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, ceramic, polyurethane and epoxy resin, wood, klinker, natural stone, porcelain and terracotta which are not subject to high mechanical stresses at the surface. If the joints are subject to frequent and prolonged contact with liquids or subject to high mechanical stresses, apply one or two coats of **Primer AS** single component, transparent, epoxy-isocyanate primer on the walls of the joint with a brush, according to the absorbency of the substrate.

The sealant must only be applied when the primer is no longer tacky (approx. 30 min. to 5 hours).

Preparation and application of Mapeflex PU55 SL

Mapeflex PU55 SL comes in 600 ml soft cartridge. 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 size of the joint.

Consult the consumption table below:

CONSUMPTION TABLE	
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 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 soft cartridge of 600 ml.

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 hazardous, and may be harmful if inhaled by those who are allergic. The product may also cause serious damage if it comes into contact with the eyes.

We recommend that the vapour given off is not inhaled, and to always use protective gloves and goggles when applying the product.

In the case of accidents, seek medical care. For further information refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE ONLY.

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
of the product are available
upon request**

TECHNICAL DATA (typical values):**PRODUCT IDENTITY**

Appearance:	self-levelling
Colour:	grey
Density (g/cm³):	1.22
Dry substances content (%):	100
Brookfield viscosity after 1 day at +23°C – 50% R.H. (mPa·s):	45,000 ± 5,000
Storage:	12 months in its original, unopened packaging
Hazard classification according to EC 99/45:	hazardous. Before using refer to the “Safety instructions for preparation and application” paragraph and the information on the packing 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 h
Final setting after:	24 h (for a 2 mm thick joint)
Step-on time:	according to the depth of the joint

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



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