



Mapeflex PB25

Two component flexible polyurethane modified resin based sealant with thixotropic consistency and resistant to hydrocarbons



WHERE TO USE

- Sealing of joints in concrete vertical elements subject to weak chemical attacks.

Some application examples

- Flexible sealing of expansion joints in canals, sewage treatment tanks and hydraulic works in general.
- Flexible sealing of vertical joints of motorway kerbs.
- Sealing of joints in concrete floors subject for accidental reasons to contact with hydrocarbons.
- Flexible sealing of parting and expansion joints of industrial flooring, service areas, garages, car repair shops, parking lots, airport runways, etc.

TECHNICAL CHARACTERISTICS

Mapeflex PB25 is a two-component, thixotropic sealant made from hydrocarbon resins and polyols (component A) and a special isocyanate-based hardener (component B).

Mixing component A with component B, **Mapeflex PB25** becomes a black thixotropic paste, easy to apply even on vertical surfaces with a flat trowel.

Once hardened, which occurs after 24-36 hours by chemical reaction alone and without shrinkage, **Mapeflex PB25** becomes flexible, resistant to hydrocarbons and water.

Mapeflex PB25 adheres very well to concrete substrates, as long as they are dry. Because of its high

abrasion resistance, **Mapeflex PB25** easily supports vehicle traffic.

Mapeflex PB25 is able to resist working elongation that does not exceed 25%, therefore it is necessary that the concrete has completed shrinkage before beginning to seal either parting or expansion joints. Once hardened **Mapeflex PB25** is resistant to temperatures from -30°C to $+70^{\circ}\text{C}$ and for short periods up to $+100^{\circ}\text{C}$.

RECOMMENDATIONS

- Do not use on damp surfaces.
- Do not use if the concrete has not cured completely or has not completed shrinkage. A good rule of thumb is not to seal during summer because the joints are at their maximum expansion. If possible, prefer the autumn.
- Before sealing, verify that the joint movements do not exceed 25% with respect to the initial width expected. If so, increase the joint size (refer to our Technical Services).
- Do not use on bituminous surfaces where the oil migration is possible.
- Do not apply **Mapeflex PB25** at temperatures below $+10^{\circ}\text{C}$ because setting would be delayed.

APPLICATION PROCEDURE

Preparing the surface to be sealed

If substantial contamination of cement laitance due

to cutting, form release oils and grease are present, accurately clean the surface with high pressured water. If this operation is necessary, accurately clean the internal sides of the joint that needs to be sealed. Use a metal brush to remove loose parts and then compressed air to remove dust.

Before sealing, make sure the joint is perfectly dry.

The sides of the concrete joints should be impregnated with **Primer PU 60** and left to dry for 30-60 minutes before sealing with **Mapeflex PB25**.

To avoid dirtying the concrete adjacent to the joint, apply adhesive tape along the edges. The tape can be removed immediately after sealing.

Preparing the product

The two parts of **Mapeflex PB25** are supplied in the correct proportions and must be completely and carefully mixed together until a black homogeneous thixotropic paste is obtained.

Avoid partial quantities. If necessary dose the components by weight keeping in mind that the mix ratio of component A and component B is 94:6.

Mixing must be carried out only with a low speed mechanical stirrer fitted with a whip to avoid the entrapment of excess air.

Setting and working time are directly linked to the temperature.

Applying the product

The sealant can carry out its sealing function well and last in time only if the expansion joints are correctly sized.

As a general rule, sealing must be carried out as follows:

JOINT WIDTH	SEALANT DEPTH
Up to 10 mm:	same as width
From 11 to 20 mm:	10 mm in all cases
More than 20mm:	half the width

In order to easily fix the depth (following the above indicated) and prevent the **Mapeflex PB25** from adhering to the bottom of the joint, a **Mapefoam** closed cell polyethylene foam strip must be inserted first. Apply slight pressure with a proper sized trowel or with a wooden strip.

Seal the joint with a small flat trowel making sure the product adheres well to the sides of the joint.

Remove the excess **Mapeflex PB25** and finish the still fresh surface with a clean trowel slightly moistened with a water and soap solution.

CONSUMPTION

Consumption depends on the size of the joint and the specific gravity of the product.

Example:

A 10x10 mm joint.

Consumption: $0.1 \text{ l} \times 1.4 \text{ kg/l} = 140 \text{ g}$
of product per linear meter.

Cleaning

Mapeflex PB25 can be removed from the surfaces and tools with ethyl alcohol, white spirit, etc. Once hardened, clean mechanically or with **Pulicol**.

PACKAGING

Mapeflex PB25 is available in 10 kg packs (component A = 9.4 kg + component B = 0.6 kg).

STORAGE

The shelf life of **Mapeflex PB25** is 12 months if stored in a dry place in its original packaging at a temperature of at least +5°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeflex PB25 component B is hazardous and may cause serious damage to health. It may also irritate the eyes, skin and respiratory organs and cause sensitising in those subjects allergic to such products.

We recommend the use of protective clothing, goggles and gloves when handling the product and working in a well-ventilated environment.

In the event of accidents or sickness, seek medical attention.

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

PRODUCT FOR PROFESSIONAL USE.

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

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

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	Component A	Component B
Colour:	black	transparent amber or transparent brown
Density (g/cm³):	1.4	1.2
Brookfield viscosity (MPa·s):	1,300,000 (# F, V = 2.5)	150 (# 1, V = 50)
Dry solids content (%):	100	100

APPLICATION DATA

Mixing ratio:	component A : component B = 94 : 6
Consistency of mix:	thixotropic paste
Colour:	black
Specific gravity (kg/l):	1.4
Brookfield viscosity (MPa·s):	870,000 (# F, V = 1)
Application temperature range:	from +5°C to +35°C
Open time (workability) at +23°C:	30'
Set too light foot traffic:	after approx. 24 hours
Curing time at +23°C:	7 days

FINAL PERFORMANCE

Shore A hardness:	20
Tensile strength (DIN 53504S3A) (MPa):	0.5
Elongation at break (DIN 53504S3A) (%):	300
Modulus at 100% of measured elongation (DIN 53504-S3A) (MPa):	0.30
Tear resistance (DIN 53515) (N/mm):	5
Resistance to temperature:	from -30°C to +70°C
Elongation when in use (%):	± 25



**Mapeflex
PB25**



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