



Mapeflex PB25

Two component flexible polyurethane resin and tar of petroliferous origin based sealant with thixotropic consistency and resistant to hydrocarbons



WHERE TO USE

- Sealing of joints in concrete vertical elements subject to weak chemical attacks.
- Sealing of joints in concrete flooring subject for accidental reasons to contact with hydrocarbons.

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 composed of a polyurethane polymer devoid of free isocyanates and a special hardener which contains tar of petroliferous origin, according to a formula developed in the Mapei research laboratories.

Mixing Part A with Part 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 10%, 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 $+80^{\circ}\text{C}$ and for short periods up to $+150^{\circ}\text{C}$.

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 10% with respect to the initial width expected. Prefer using sealants with higher working elongation values or increase the joint size (refer to our Technical Services).
- Do not use on bituminous surfaces where the migration of oils 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 not 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.

If the sides of the concrete joints are not sufficiently solid, they should be consolidated with **Primer EP** and left to dry for 3-4 hours 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 Part A and Part B is 2:1.

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. At +23°C setting and working time are approximately 2 hours and 30 minutes.

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:	equal to the width
From 10 to 30 mm:	equal to 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: $0.1 \text{ l} \times 1.16 \text{ kg/l} = 0.116 \text{ kg}$ 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 6 kg packs (Part A = 4 kg + Part B = 2 kg).

FOR PROFESSIONALS.

WARNING

N.B. - Although the technical details and recommendations contained in this product report 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 applications: 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.

**All relevant references
of the product are available
upon request**

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	Part A	Part B
Colour:	neutral	black
Specific gravity (kg/l):	1.22	1.10
Hazard classification according to EEC 88/379:	irritant	irritant
Brookfield viscosity (mPa·s):	800 000 (# FV5)	2 000 (# 6/20 rotor)
Dry solids content (%):	100	100
Storage:	Mapeflex PB25 is stable in storage for at least 1 year if drums are sealed	
APPLICATION DATA		
Mixing ratio:	Part A : Part B = 2 : 1	
Consistency of mix:	thixotropic paste	
Colour:	black	
Specific gravity (kg/l):	1.16	
Brookfield viscosity (mPa·s) (# FV5):	600 000	
Application temperature range:	from +10°C to +40°C	
Open time (workability) at +23°C:	30'	
Set too light foot traffic:	after approx. 12-24 hours	
Curing time at +23°C:	7 days	
FINAL PERFORMANCE		
Shore A hardness:	35	
Tensile strength (acc. to DIN 53504S3A):	0.5 N/mm²	
Elongation at break (acc. to DIN 53504S3A):	200%	
Modulus at 100% of measured elongation according to ISO 8339 Method A:	0.4	
Resistance to abrasion:	excellent	
Resistance to moisture:	excellent	
Resistance to ageing:	excellent	
Resistances to solvents and oils:	excellent	
Resistance to temperature:	from −30°C to +80°C	
Maximum elongation allowed in continuous duty:	maximum 10%	



BUILDING THE FUTURE

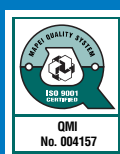
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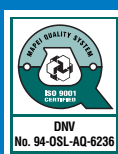
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