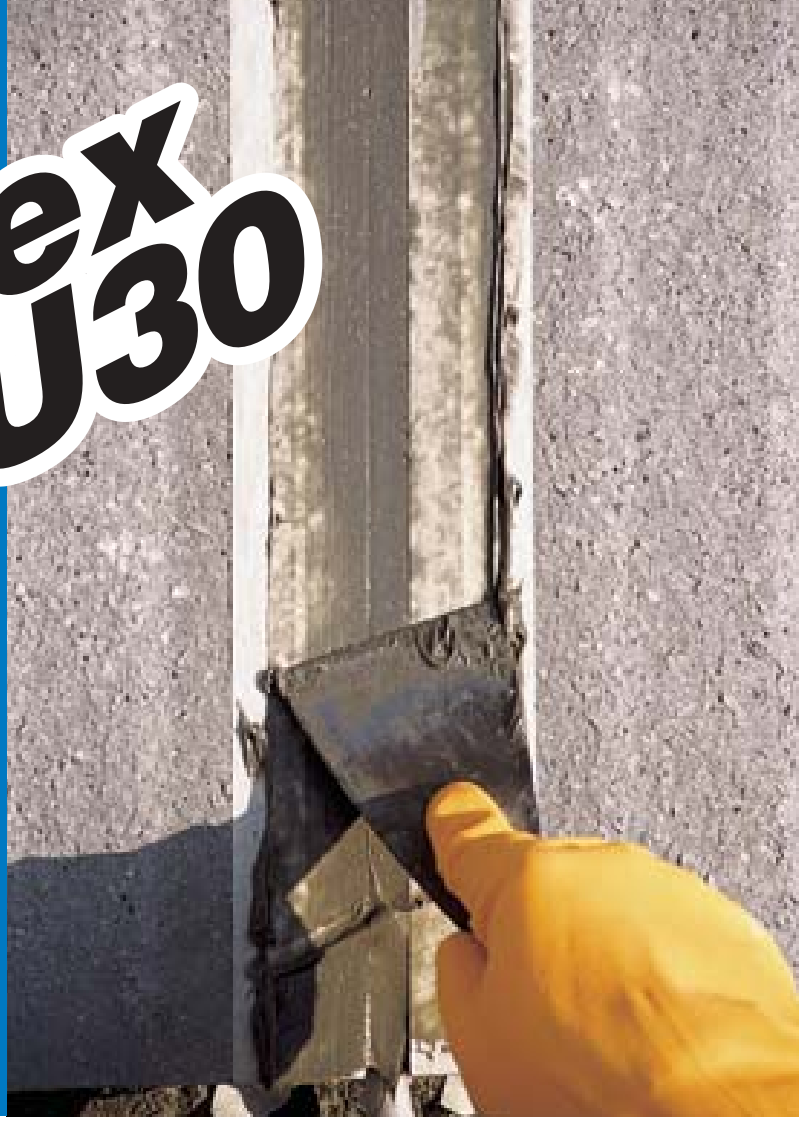
MAPEI

Mapeflex PU30

Two component thixotropic polyurethane sealant



WHERE TO USE

- Sealing joints in vertical concrete structures, both interior and exterior.
- Abrasion resistant sealing of joints in industrial floors subject to heavy traffic, both interior and exterior.
- Sealing joints in rubber and PVC floors.

Some application examples

- Sealing flexible joints in concrete walls. More in general, for all vertical structures, both interior and exterior, where a thixotropic product with high resistance to chemical agents, waterproof and vapour permeability is required.
- Sealing joints in ceramic tile floors in areas subject to heavy traffic such as supermarkets, industrial buildings with fork lift truck traffic, sidewalks, pedestrian crossings, arcades, squares, etc.
- Sealing movement joints in concrete floors in car parks and industrial buildings subject to vehicle traffic or where a high resistance to chemicals is required.
- Sealing rubber and PVC flooring by filling the joints between each single tile or the sheets.
- Flexible sealing around machine bases in heavy industries.
- Flexible sealing around pipelines, outlets, drains etc.

TECHNICAL CHARACTERISTICS

Mapeflex PU30 is a two component thixotropic sealant consisting of devoid isocyanate free polyurethane polymer (Part A) and a special hardener (Part B). Mixing the two components produces a uniformly coloured thixotropic paste, easily workable with a flat trowel.

Mapeflex PU30 can be used on both vertical and horizontal surfaces. After hardening by chemical reaction alone, which takes place in approximately 24 hours without shrinkage, **Mapeflex PU30** becomes elastic, resistant to water and heat, with high mechanical strength and abrasion-resistant properties, and a good adhesion to almost all materials that are commonly used in building.

Mapeflex PU30 cannot undergo work elongation above 10%. It is therefore necessary that the concrete has completed the shrinkage phase before sealing the joints (whether the joints are expansion or distribution joints). The resistance of **Mapeflex PU30** to chemicals is good; however, due to the variety of products and working conditions under which it can be used, it is advisable to carry out preliminary tests in cases of doubt.
The temperature resistance of **Mapeflex PU30** is between –30°C and +80°C.

RECOMMENDATIONS

- Do not use on substrates that are subject to rising damp.
- Do not use on damp surfaces.
- Do not use if the concrete has not cured completely and has not completed the shrinkage phase. It is not advisable to seal during the summer season; joints are at their maximum expansion. It is preferable to seal during the autumn.

Mapeflex PU30

- Before sealing make sure the expansion of the joints do not exceed 10% of the initial width. If otherwise, prefer sealants that have higher elongation properties or increase the width of the joint (refer to our Technical Assistance).

- Do not use on bituminous surfaces where the bleeding of oils may take place.

- Do not apply **Mapeflex PU30** at temperatures below +10°C.

APPLICATION PROCEDURE

Preparing the surface for sealing

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 PU30**.

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

Preparing the product

The two parts of **Mapeflex PU30** are supplied in the correct proportions. They must be accurately and completely mixed together until a thixotropic paste is obtained and the colour of the mix is uniform.

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

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

The setting and working time are strictly tied to the ambient temperature; at +23°C approximately 1 hour.

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 PU30** 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 using a small flat trowel making sure the product adheres to the sides of the joint.

Remove the excess **Mapeflex PU30** and finish the fresh surface with a clean trowel slightly moistened with a water and soap solution.

Cleaning

Mapeflex PU30 can be removed from surfaces, tools, cloths, etc., with toluol or alcohol before it has hardened; after hardening it can be cleaned mechanically or with **Pulicol**.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Mapeflex PU30 Part A is irritant in direct contact with the eyes and skin. Part B is a strongly caustic and harmful substance. After repeated and prolonged contact, sensitivity of the skin could be caused.

Avoid any type of contact with the skin, wash with plenty of water and soap and if there should be any sensitivity of the skin, consult a doctor. Use in ventilated areas.

CONSUMPTION

The consumption varies according to the size of the joint. For example, bearing in mind that the density of **Mapeflex PU30** is 1.48 g/cm^3, for a 10x5 mm joint, the consumption is approximately 75 g/m.

COLOURS

Mapeflex PU30 is available in grey.

Special colours are available only on request and for an amount of at least 500 kg.

PACKAGING

Mapeflex PU30 is available in 10 kg (Part A = 9.4 kg + Part B = 0.6 kg) and 5 kg (Part A = 4.7 kg + Part B = 0.3 kg) units.

STORAGE

Store in a dry place at temperatures between +10°C and +35°C).

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**
Constancy:	thick paste	fluid liquid
Colour:	grey	straw-coloured transparent
Specific gravity (g/cm³):	1.5	0.92
Dry solids content (%):	96.5	100
Brookfield viscosity (mPa·s):	1 100 000	250
Storage:	**Mapeflex PU30** is stable for at least 1 year if stored in sealed original packaging	
Hazard classification according to CEE 88/379:	irritant	corrosive Before using the product, consult the "Safety instruction" paragraph and the information described on the packaging and safety data sheet.
Customs class:	3909 50 00	

APPLICATION DATA AT +23°C - 50% U.R.	
Mix ratio:	Part A : Part B = 94 : 6
Consistency of mix:	paste
Specific gravity of mix (g/cm³):	1.48
Pot life (workability):	30-40 minutes
Application temperature range:	from +10°C to +35°C
Initial setting time:	8 hours
Final setting time:	9 hours
Set to light foot traffic:	after 24-36 hours
Final cure time:	3 days

FINAL PERFORMACE	
Shore-A-hardness:	65
Tensile strength (acc. to DIN 53504S3A):	2.5 N/mm²
Elongation at break (acc. to DIN 53504S3A):	100%
Resistance to abrasion:	excellent
Resistance to moisture:	excellent
Resistance to ageing:	excellent
Resistance to solvents and oils:	good
Resistance to acids and alkalis:	good
Resistance to temperature:	from –30°C to +80°C
Flexibility:	yes
Maximum elongation in operation:	max 10%

Mapeflex PU30

(GB) A.G. BETA

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