



Mapesil BM

Odourless neutral cross-linking silicone sealant with low modulus of elasticity for expansion joints, metal based water draining systems and for general use



WHERE TO USE

Mapesil BM is used for:

- sealing expansion joints with max. 25% expansion from its initial size;
- sealing joints between different types of materials: e.g. concrete, renders, metal sheets, plastics, glass, etc.

Some application examples

- Sealing expansion joints in prefabricated panels used for residential and industrial buildings.
- Sealing concrete elements, cellular concrete, etc.
- Sealing metal sheet elements, such as: flashings, downspouts, etc.
- Sealing glass and windows to aluminium, wood and PVC frames.
- Sealing air lines and heating pipes, cable conduits, water pipes in metal or PVC, etc.
- Sealing gaskets in general, where low modulus products are preferred.
- Odourless adhesive sealant for general use.

TECHNICAL CHARACTERISTICS

Mapesil BM is a single-component, solvent-free odourless silicone sealant with neutral cross-linking,

prepared as a thixotropic paste. It is easily applied both horizontal and vertical surfaces, cross-linking at ambient temperatures to form a flexible product.

Seals formed with **Mapesil BM** remain unchanged even after many years of exposure to climatic extremes, industrial pollution, sudden temperature change and water. It remains flexible at a temperatures from -50°C to $+150^{\circ}\text{C}$.

The resistance of **Mapesil BM** to chemical agents is generally good; however, due to the numerous products and working conditions to which **Mapesil BM** can be applied, it is always advisable to make a preliminary test in cases of doubt.

Mapesil BM will adhere perfectly to most surfaces used in building without needing a primer (glass, ceramic, aluminium, concrete).

In cases of prolonged immersion **Primer FD** must be applied first.

If in doubt, refer to our Technical Service Department or make a preliminary test.

Mapesil BM is available in grey, copper, dark brown and bronze.

RECOMMENDATIONS

- Do not apply **Mapesil BM** on rubber, highly plasticized plastic materials or bituminous surfaces, because oils and plasticisers could migrate to the surface compromising the adhesion and penetrating into the sealant altering its colour and resistance.

Mapesil BM



Protection of the joint edges with a protective tape and positioning Mapefoam into the joint



Joint filling with Mapesil BM



Joint smoothing by removing the excess sealant

- Do not use **Mapesil BM** for sealing floors (use **Mapeflex PU21**, **Mapeflex PU20** or **Mapeflex PB27**).
- Do not use **Mapesil BM** for sealing swimming pools (use **Mapesil AC**).
- Use **Mapesil LM** for sealing expansion joints between natural stones (marbles, granites, agglomerates, etc.).

APPLICATION PROCEDURE

All surfaces to be sealed must be dry, solid and free from dust and loose particles, oil, grease, wax, old paint and rust.

If the sealant is to perform correctly, it must be allowed to elongate and compress freely after application to the joint.

It is therefore necessary that:

- it adheres perfectly to the side walls of the joint and **not** to the bottom;
- the width of the joint is assessed correctly so that its length in operation is not in excess of 20-25% of the initial width calculated at +23°C;
- the thickness of **Mapesil BM** must not be more than half the width of the joint.

To adjust the depth and prevent the **Mapesil BM** from adhering to the base, the bottom of the joint should be filled with a special polyethylene foam such as **Mapefoam**.

Application of Primer FD

In cases where prolonged immersion in water is required, apply **Primer FD** with a small brush onto the edges of the joint and let dry for several minutes allowing the solvent to evaporate. Then apply **Mapesil BM**.

Application of Mapesil BM

Mapesil BM is packed in cartridges of 310 ml; to use, cut the cartridge above the end of the thread and screw on the nozzle, which should be cut at 45° to the corresponding size of the joint. Insert the cartridge into the gun and extrude the sealant.

The surface of **Mapesil BM** must be finished off with a damp implement, preferably moistened with soapy water, before a superficial film has formed.

Cross-linking

Mapesil BM exposed to air crosslinks with humidity, becoming elastic.

The speed at which **Mapesil BM** crosslinks depends only slightly on temperature, but is

fundamentally linked to humidity in the atmosphere. It is always recommended not to apply the product in temperatures below 0°C.

Cleaning

To clean partially cross-linked **Mapesil BM** from tools and contaminated surfaces, common solvents may be used (e.g. ethyl acetate, petrol, toluene). Once cross-linking is complete, silicone rubber can only be cleaned mechanically.

CONSUMPTION

The consumption varies depending on the size of the joint.

PACKAGING

Mapesil BM is available in 310 ml cartridges in grey, copper, dark brown and bronze.

STORAGE

Mapesil BM is stable for at least 12 months when stored in a dry place in original cartridges.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Mapesil BM is not hazardous according to the ruling standards on the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemical products.

The Safety Data Sheet is available upon request for professional users.

PRODUCT FOR PROFESSIONALS.

WARNING

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)

In compliance with:

– ISO 11600 - G - Class 25 LM
 – ISO 11600 - F - Class 25 LM

PRODUCT IDENTITY

Type:	thixotropic paste
Colour:	grey, copper, dark brown and bronze
Density (g/cm³):	1.25
Dry solid content (%):	100
Storage:	12 months in original sealed cartridges
Hazard classification according to EC/99/45:	none. Before using refer to the "Safety instructions for the preparation and application" paragraph and the information on the packing and Safety Data Sheet
Customs class:	3214 90 00

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

Application temperature range:	from +5°C to +40°C
Extrusion speed from a 3.5 mm nozzle at a pressure of 0.5 MPa (ml/minute):	120
Time for formation of skin (minutes):	10-20
Shrinkage during vulcanisation (ISO 10563) (%):	8
Cross-linking speed (mm):	
– after 1 day:	4
– after 7 days:	10

FINAL PERFORMANCES

Tensile strength according to ISO 8339 (N/mm²):	0.6
Elongation at break according to ISO 8339 (%):	320
Maximum permissible movement according to ISO 11600 (%):	25
Tear strength according to ISO 34 method C (N/mm²):	4
Shore-A-Hardness (DIN 53505):	25
Modulus of elongation measured according to ISO 8339 method A at 100% elongation (N/mm²):	0.30
Resistance to water:	excellent
Resistance to aging:	excellent
Resistance to atmospheric agents:	excellent
Resistance to chemical agents, acids and diluted alkali:	good
Resistance to cleansing agents:	excellent
Resistance to temperature:	from –50°C to +150°C



Removing the protective tape



Final sketch of the joint after removing the protective tape

Mapesil-BM



BUILDING THE FUTURE

MAPEI GROUP CERTIFIED MANAGEMENT SYSTEMS (Quality, Environment and Safety)

<p>CERTQUALITY No. 250</p>	<p>ISO 14001 Plant in Robbiano di Magglio CERTQUALITY No. 1230</p>	<p>ISO 14001 Plant in Larian CERTQUALITY No. 4127</p>	<p>EMAS VERIFIED ENVIRONMENTAL MANAGEMENT SYSTEM No. 100001014 PLANT IN ROBBIANO DI MAGGIO</p>	<p>OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS OHSAS 18001 CERTIFIED BY CERTQUALITY No. 3506</p>	<p>CERTQUALITY No. 6853</p>	<p>CERTQUALITY No. 3358</p>	<p>ITC No. 03 0063 SJ</p>
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<p>CERTQUALITY No. 1517</p>	<p>QMI No. 004157</p>	<p>DNV No. 94-OSL-AQ-6236</p>	<p>ISO 14001 Plant in Sognus DNV No. 282-OSL-5YMI-4017</p>	<p>EMAS VERIFIED ENVIRONMENTAL MANAGEMENT SYSTEM No. 2003-OSL-624-1111 PLANT IN SOGNUS</p>	<p>DNV No. 12026-2002 AQ-BUD-TGA</p>	<p>IRAM No. AR-QS-688</p>	<p>CERTQUALITY No. 5776</p>
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