

405/3.99

® MAPEFLEX GB1

ELASTIC-PLASTIC BUTYL RUBBER-BASED SEALANT



WHERE TO USE

MAPEFLEX GB1 is used for:

- Sealing expansion and compression joints subject to small-scale movements.
- Forming a flexible seal between elements used in building and engineering, and glass items.

Typical applications

- Elastic/plastic seals between glass and metal or wood in window and door frames.
- Sealing double-glazed items.
- Seals between panels in sheet-metal, asbestos cement, polyester resins, PVC and other plastics, as long as they are mechanically fixed.

- Sealing elements in brickwork, wood and concrete, for tiles, gutters, etc.
- Sealing elements subject to frequent vibration, as long as they are mechanically fixed.

TECHNICAL CHARACTERISTICS

MAPEFLEX GB1 is a single-component product based on butyl elastomers in water dispersion and is a thixotropic paste easy to apply on both horizontal and vertical surfaces.

MAPEFLEX GB1 seals remain unaltered even after many years of exposure to bad weather, industrial environments and thermal gradients. They retain their elastic-plastic characteristics in

temperatures as low as -30°C and resist temperatures up to $+80^{\circ}\text{C}$ (100°C for short periods).

Their resistance to chemical agents (diluted acids and alkalis) is good to a certain extent.

However, given the large number of products and operating conditions, it is best to carry out a few tests before using MAPEFLEX GB1.

Its resistance to water is excellent.

Adhesion

MAPEFLEX GB1 adheres to all porous surfaces, such as concrete, wood, asbestos cement, plaster, brickwork, and to metal, glass, rubber and many plastics. In the event of doubt, preliminary tests should be carried out.

RECOMMENDATIONS

- Do not use MAPEFLEX GB1 for expansion joints with a movement greater than 5% (use MAPESIL AC).
- Do not use MAPEFLEX GB1 for joints subject to foot traffic (use MAPEFLEX PU21).
- Do not use MAPEFLEX GB1 on bituminous surfaces.

DIRECTIONS FOR USE

Preparing and sizing the joint

All surfaces to be sealed must be solid and strong, free of dust and crumbling parts, oils, 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 adhere perfectly to the side walls of the joint and not to the bottom;
- that the width of the joint is assessed correctly so that its length in operation is not in excess of 5% of the initial width calculated at $+20^{\circ}\text{C}$;
- that the thickness of the MAPEFLEX GB1 joint is always less than or, at the most, equal to the width.
To adjust the depth and make sure that

MAPEFLEX GB1 does not adhere to the bottom, it is necessary to apply special filling materials, in polyethylene foam, for example, or MAPEFOAM.

Using the sealant

MAPEFLEX GB1 comes in 310-ml cartridges and 25-kg buckets. To use the cartridge, cut it at the top of the thread, screw down the nozzle, cutting a 45° opening according to the size of the joint, insert the cartridge into the pistol and extrude.

To use MAPEFLEX GB1 from the bucket, the appropriate tools must be employed. Finishing must be done with a damp tool and before a compact film forms.

Cleaning

MAPEFLEX GB1 can be cleaned from tools and surfaces with aliphatic solvents or by mechanical means.

Hardening

MAPEFLEX GB1 becomes elastic-plastic by the evaporation of the solvents it contains. After about 20 minutes at +23°C and 50% RH, a thin surface-film forms. A thickness of 5 mm needs 24 hours to harden completely. Higher temperatures accelerate the process while greater thicknesses require more time.

During hardening, solvents are released. At the end of the process, MAPEFLEX GB1 is odourless and practically non-toxic (consult the MAPEI technical assistance office).

N.B. MAPEFLEX GB1 sealant contains aliphatic solvents, harmless in terms of toxicity but with vapours that are inflammable. Therefore, it must only be used in sufficiently well ventilated environments away from flames.

COVERAGE

Coverage depends on the size of the joint:

- a 5x5 mm joint needs approx. a 12 ml/cartridge;
- a 10x5 mm joint needs approx. a 6 ml/cartridge;
- a 10x10 mm joint needs approx. a 3 ml/cartridge.

PACKAGING

MAPEFLEX GB1 is available in 310-ml cartridges and 25-kg buckets.

TECHNICAL DATA	
PRODUCT IDENTITY	
Consistency:	transparent paste
Colour:	grey
Specific gravity:	1,35 g/cm ³
Solids content:	80%
Storage time:	12 months in unopened original packaging
Health hazard according to EEC 88/379:	no
Inflammability:	yes
Customs class:	3214 90 00
APPLICATION DATA	
Acceptable temperature range:	from +0°C to +40°C
Skin formation time at +23°C - 50% RH:	20 mins.
Hardening rate at +23°C - 50% RH:	5 mm/day
FINAL PERFORMANCES	
Shrinkage after hardening:	20%
Shore-A hardness:	10-15%
Elongation at break:	400%
Max. elongation in operation:	5-10%



WARNING

N.B. Although the technical details and recommendations contained in this 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 use of the product.

N.B. FOR PROFESSIONALS

MAPEI SAFETY & QUALITY



This site operates under an environmental management system. Its environmental performance is disclosed to the public in compliance with EMAS, the European Community Eco Management and Audit Scheme, Registration N° I-S-000019.



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