

BOSS® MS40+ HYBRID SEALANT

TECHNICAL DATA

Basis	SMX Hybrid Polymer
Consistency	Stable paste
Curing System	Moisture curing
Curing speed * (23°C/50% R.H.)	2 - 3 mm/24h
Skin formation time* (23°C/50% R.H.)	10 min
Density	1.52 ± 0.03 g/ml
Hardness Shore A points** (ISO 868)	35 ± 5
Tensile Strength** (ISO 37)	1.5 - 2.0 N/mm ²
Elongation at break (ISO 7)	>750 %
Elasticity modulus 100%** (ISO 37)	0.49 N/mm ²
Maximum allowed distortion (ISO 11600)	± 25 %
Temperature resistance**	40°C → 90°C
Application temperature	5°C → 35°C

* These values may vary depending on environmental factors such as temperature, moisture, and type of substrates.

** This information relates to fully cured product.

Description

BOSS® MS40+ is a high quality, neutral, elastic, 1-component industrial and construction joint adhesive sealant based on SMX-Polymer.

Properties

- Excellent adhesion on nearly all surfaces, even if slightly moist.
- Very good mechanical characteristics.
- High elasticity – movement accommodation up to ±20%.
- Good extrudability even at low temperatures.
- Impervious to mould, contains Carbendazym (biocide with fungicidal action).
- No bubble formation within sealant in high temperature and humidity applications.
- Good colour stability, weather and UV resistance.
- Ecological advantages – free of isocyanates, solvents, halogens and acids.
- Can be painted with water-based systems.

Applications

- Bonding applications in industrial, construction and metal constructions.
- Strong elastic bonding in vibrating constructions.
- Sanitary applications.
- Sealing of floor joints.
- Connection joints in sheet metal fabrication, sealing of air conditioning systems.
- Bonding of security and safety glass.
- Supplement bonding in car bodies, caravans & containers.

Packaging

Colour: White, black, grey, brown, concrete grey, beige
Packaging: 290 ml cartridge, 600 ml sausage

Shelf life

12 months in unopened packaging in a cool and dry storage place at temperatures between +5°C & +25°C.

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Chemical resistance

Good resistance to water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis. Poor resistance to aromatic solvents, concentrated acids and chlorinated hydrocarbons.

Substrates

Substrates: all usual building substrates, treated wood, PVC, plastics, ...

Nature: clean, dry, free of dust and grease.

Surface preparation: Porous surfaces in water loaded applications should be primed with Primer 150. All smooth surfaces can be treated with Surface Activator. The surfaces should be degreased before bonding them together. We recommend a preliminary adhesion test on every surface. BOSS® MS40+ has excellent adhesion on most substrates. BOSS® MS40+ has been tested on the following metal surfaces: steel, AlMgSi1, brass, electrolytic galvanised steel, AlCuMg1, flame galvanised steel, AlMg3 and steel ST1403. BOSS® MS40+ also has a good adhesion on plastics: polystyrene, polycarbonate (Makrolon®), PVC, ABS, polyamide, PMMA, fiber-glass reinforced epoxy, polyester. While producing plastics very often releasing agents, processing aids and other protective agents (like protection foil) are used. These should be removed prior to bonding. For optimum adhesion the use of Surface Activator is recommended.

NOTICE: bonding plastics like PMMA (e.g. Plexi® glass), polycarbonate (e.g. Makrolon® or Lexan®) in stress loaded applications can give rise to stress cracking and crazing in these substrates. The use of BOSS® MS40+ is not recommended in these applications. There is no adhesion on PE, PP, PTFE (Teflon®), silicones and bituminous substrates.

Joint dimensions

Min. width for bonding: 2 mm

Min. width for joints: 5 mm

Max. width for bonding: 10 mm

Max. width for joints: 30 mm

Min. depth for joints: 5 mm

Recommendation sealing jobs: joint width = 2 x joint depth.

Environmental clauses

Leed regulation: BOSS® MS40+ conforms to the requirements of LEED. Low -Emitting Materials: Adhesives and Sealants. SCAQMD rule 1168. Complies with USGBC LEED® 2009 Credit 4.1: Low-Emitting Materials – Adhesives & Sealants concerning the VOCcontent.

Application method

Application method: With manual- or pneumatic caulking gun.

Cleaning: Clean with white spirit or Surface Cleaner immediately after use.

Finishing: With a soapy solution Finishing Solution before skinning.

Repair: With the same material

Health and safety recommendations

Take the usual labour hygiene into account. Consult label for more information.

Remarks

- Boss 239 is paintable with most waterbased paints, however due to the large number of paints and varnishes available we strongly suggest a compatibility test before application.
- The drying time of alkyd resin based paints may increase.
- Boss 239 can be applied to a wide variety of substrates. Due to the fact that specific substrates such as plastics, like polycarbonate, etc, may differ from manufacturer to manufacturer, we recommend preliminary compatibility test.
- Boss 239 has a good UV resistance but can discolour under extreme conditions or after very long UV exposure.
- Boss 239 can not be used as a glazing sealant.

Disclaimer: This technical data sheet replaces all previous versions. The directives contained within this documentation are the result of our experiments and experience, and have been submitted in good faith. Because of the diversity of the materials and substrates, in addition to the great number of possible applications that go beyond our control, we cannot accept any responsibility for the results obtained. Further, since the design, quality of the substrate, and processing conditions are beyond our control, no liability under this publication will be accepted. In every case, it's therefore recommended to carry out preliminary experiments. BOSS reserves the right to modify its products, without prior notice.

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