

14 February 2024

MULTIBOND SMX50 Seal & Stick

Technical Data

Basis	SMX® Hybrid Polymer
Consistency	Stable paste
Curing system	Moisture curing
Skin formation* (23°C/50% R.H.)	Ca. 10 min
Curing speed* (23°C/50% R.H.)	Ca. 2 - 3 mm/24h
Hardness**	Ca. 40 ± 5 Shore A
Density	Ca. 1.60 g/mL
Elastic recovery (ISO 7389)**	> 75%
Maximum allowed distortion (ISO 11600)	± 20%
Max. tension (ISO 37)**	Ca. 1.50 N/mm ² (MPa)
Elasticity modulus 100% (ISO 37)**	Ca. 0.80 N/mm ² (MPa)
Elongation at break (ISO 37)**	400 %
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

Product description

Multibond SMX50 Seal & Stick is high quality, neutral, elastic and trafficable one component sealant adhesive based on the unique SMX® Hybrid Polymer technology developed by Soudal.

Properties

- Good extrudability
- Trafficable
- Stays elastic after curing and very durable
- Excellent adhesion on nearly all surfaces, even if slightly moist.
- Can be painted with water based systems
- No odour.
- Does not contain solvents, isocyanates, acids, halogens and toxic components, completely neutral.
- Good weather and UV resistance

Applications

- Sealing and bonding in the building and construction industry.
- Strong elastic bonding in vibrating constructions.
- Sealing and bonding in the building and construction industry.
- Sealing of floor joints

Packaging

Colour: white, black, grey

Packaging: 290 mL cartridge, 600 mL sausage

Shelf life

12 months in original, unopened packaging in a cool and dry storage place with temperature between +5°C and +25°C.

Chemical resistance

Good resistance to (salt)water, aliphatic solvents, hydrocarbons, ketones, esters, alcohols, diluted mineral acids and alkalis.

Poor resistance to aromatic solvents, concentrated acids and chlorinated hydrocarbons.

Substrates

Substrates: all usual building substrates, brick, concrete, metals, treated timber, PVC, plastics, ...

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

Surface preparation: Multibond SMX50 Seal & Stick has a good adhesion to most substrates. However, for optimal adhesion and in critical applications, such as joints exposed to extreme weather conditions, high- or water- loaded joints, we recommend to follow a pretreatment procedure. Prepare non-porous surfaces with a Soudal **Surface Activator** or cleaner (see

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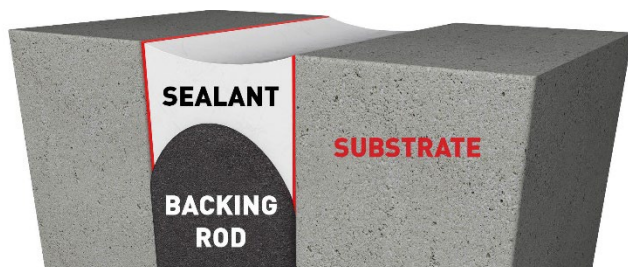
Technical Data Sheet). Porous surfaces should be primed with Soudal **Primer 150**.

Multibond SMX50 Seal & Stick is has been tested on following metal surfaces: AlCuMg1, AlMg3, AlMgSi1, stainless steel, electro-galvanized steel, steel ST1403, hot dip galvanized steel. Multibond SMX50 Seal & Stick also has a good adhesion on plastics: polystyrene, polycarbonate (Makrolon®), PVC, polyamide, fiberglass 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 or sealing. For optimum adhesion the use of **Surface Activator** is recommended. We recommend a preliminary adhesion test on every surface.

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 Multibond SMX50 Seal & Stick is not recommended in these applications. Not suitable for PE, PP, PTFE (eg. Teflon®), bituminous substrates, copper or copper-containing materials such as bronze and brass. We recommend a preliminary adhesion and compatibility test on every surface.

Recommended joint dimensions

	JOINT		BONDING
	Width	Depth	Width
Min	5 mm	5 mm	2 mm
Max	30 mm	15 mm	10 mm
Recommendation for sealing: ½ width = depth			



The optimal bond thickness for this product is at least 2 mm for the elastic properties to come to full justice.

Application method

Apply the product with high thrust-ratio caulking gun. Smoothen the joint with a spatula with the help of finishing solution. Avoid that soapy solution comes between the joint edges and sealant (to prevent adhesion loss).

Application method: With manual- or pneumatic caulking gun.

Cleaning: Clean with Soudal Surface Cleaner or with Soudal **Swipex**, immediately after use. Cured Multibond SMX50 Seal & Stick can only be removed mechanically.

Finishing: With a soapy solution or Soudal Finishing Solution before skinning.

Repair: With the same material.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult label and material safety data sheet for more information. Use only in well-ventilated areas.

Remarks

- Multibond SMX50 Seal & Stick may be overpainted with water-based 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.
- Multibond SMX50 Seal & Stick 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.
- 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.
- Multibond SMX50 Seal & Stick cannot be used as a glazing sealant.

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- A total absence of UV can cause a colour change of the sealant.
- When using different reactive joint sealants, the first joint sealant must be completely hardened before the next one is applied.
- Not suitable for bonding aquariums.
- Do not use in applications where continuous water immersion is possible.
- Discoloration due to chemicals, high temperatures, UV-radiation may occur. A change in colour does not affect the technical properties of the product.
- Contact with bitumen, tar or other plasticizer releasing materials such as EPDM, neoprene, butyl, etc. is to be avoided since it can give rise to discolouration and loss of adhesion.

Environmental clauses

Leed regulation:

Multibond SMX50 Seal & Stick 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 VOC-content.

Liability

The content of this technical data sheet is the result of tests, monitoring and experience. It is general in nature and does not constitute any liability. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application.

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