SOUDAL

Technical datasheet

SMX 506

Product description

SMX 506 is a high quality, neutral, elastic, one-component glazing sealant based on SMX polymer. SMX 506 is specially developed for use on self cleaning glass.

Properties

- Good adhesion on slightly moist substrates
- Good mechanical characteristics
- High elasticity
- No bubble formation within sealant in high temperature and humidity applications
- Good weather and UV resistance
- Can be painted wet-on-wet with waterborn paints
- Easy to apply
- Good UV resistance

Applications

- Glazing joints between glass and window: wood, aluminium, steel or PVC. Specially developed for use on self cleaning glass (eg. SGG Bioclean® and Pilkington Activ Glass™).
- Paintable glazing joints

Technical data

Base		SMX Hybrid Polymer
Consistency		Stable paste
Curing system		Moisture curing
Skin formation		ca. 15 minutes
Curing speed		ca. 2 mm/24h
Density		ca. 1.45 g/ml
Maximum allowed joint movement		± 25%
Elasticity modulus	ISO 37	ca. 0.40 N/mm²
Elastic recovery		> 70%
Elongation at break	ISO 37	> 500%
Maximum tension	ISO 37	ca. 0.85 N/mm²
Hardness		ca. 20 ± 5 Shore A
Application temperature		+5°C → +35°C
Temperature resistance		-40°C → +90°C

Footnote: Skinning time and curing speed may vary depending on environmental factors such as temperature, moisture, and type of substrates.

Substrates

- Substrate condition
  The surface must be rigid, clean, dry or slightly moist, free of dust and grease.

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- Substrate preparation
  Porous surfaces in water loaded applications should be primed with Primer 150. Prepare non-porous surfaces with a soudal activator or cleaner (see technical data sheet).
- Substrate types
  SMX 506 has a good adhesion to following substrates: self cleaning glass, glass, lacquered wood, PVC, concrete, aluminium. SMX 506 has no good adhesion or is not suitable for bituminous substrates, copper or copper containing materials such as bronze and brass, PE, PP, PTFE (Teflon®). We recommend a preliminary adhesion and compatibility test on every surface.

Application method

- Application method
  Apply the product by means of a manual-, battery- or pneumatic- caulking gun. Apply the product evenly without air inclusions into the joint. Smoothen the joint with a spatula with the help of finishing solution. Avoid that finishing solution comes between the joint edges and sealant (to prevent adhesion loss). It is important to ventilate well the places where the product is applied. Continue to ventilate throughout the curing time.
- Application tools
  With a manual, pneumatic or battery caulking gun.
- Cleaning method
  Clean with White Spirit or Soudal Surface Cleaner immediately after use (before curing).
- Finishing method
  Finish with a soapy solution or Finishing Solution before skinning.
- Repair method
  Repair with SMX 506.

Compatibility

- Compatibility with glass
  SMX 506 is not suitable for contact with secondary sealant of insulating glass units.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult the packaging label and safety data sheet for more information.
Keep the area well ventilated during use and curing of the product.
Dangerous. Respect the precautions for use.

Packaging/Logistics

Colour: Please consult the product catalogue, the Soudal website or a Soudal representative.
Packaging: Please consult the product catalogue, the Soudal website or a Soudal representative.
Shelf life: 12 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C, Once opened the product has only a limited shelf life.

Standards and certificates

- DIN EN ISO 11600 G 25LM Bioclean -Activ Glass (IFT Prüfbericht 504 34673)
- ISO 11431 on SGG Bioclean® and Activ Glass™ (IFT Prüfbericht 504 28498/3)

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Joint dimensions

- Min. width for joints: 4 mm
  Max. width for joints: 30 mm
  Min. depth for joints: 4 mm
  Recommendation sealing jobs:
  Width ≤ 6 mm: width = depth
  Width > 6 mm: width = 2 x depth

Environmental clausules

- Leed regulation: SMX 506 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.

Remarks

- SMX 506 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.
- Remove all traces of soap (tooling) because it will harm the adhesion of the paint onto the sealant.
- The use of metal spatula or other hard tooling equipment on self-cleaning glass is not recommended in order to prevent the damaging of the active layer of the glass.
- We recommend the use of Soudaseal 215LM for all perimeter joints (between wall and window profiles) in applications where Self-cleaning glass is used.
- Do not use SMX 506 in applications where continuous water immersion is possible. Therefore a min. inclination of 10° of the surface is required.
- Self-cleaning-glass: SMX 506 allows a primerless application on selfcleaning- glass. (e.g. Activ Glass by Pilkington and Bioclean by Saint-Gobain Glass). All naturally and accelerated weathering tests performed up till now show an excellent compatibility and adhesion of the product on the selfcleaning- glass. Our growing experience with this type of glass will also allow for a more accurately predicted long-term functionality of the product onto this type of glass.
- Not suitable for bonding aquariums.
- Do not use on natural stones like marble, granite,...(staining).
- When using different reactive joint sealants, the first joint sealant must be completely hardened before the next one is applied.
- SMX 506 can discolour under extreme conditions or after very long UV exposure.
- Discoloration of the product due to chemicals, high temperatures, UV-radiation may occur.
- 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 discoloration and loss of adhesion.
- Do not use on polycarbonate.
- The use on plastics such as PMMA (e.g. Plexi® glass) or polycarbonate (e.g. Makrolon® or Lexan®) in stress loaded applications can give rise to stress cracking and crazing within the substrate. The use of SMX 506 is not recommended in these applications.

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