

Code	Description	Size	Colour
56219	Soudal Soudaseal FR	600ml	Grey

1. Description

Soudal Soudaseal FR is a high-quality, fire-resistant, smoke-tight, neutral, elastic, one component joint and adhesive sealant based on SMX Polymer technology.

2. Characteristics

- High performance mechanical properties
- Flexible elastic polymer
- No bubble **formation within sealant** (in high temperature and humidity applications)
- Primerless adhesion on many substrates (except where water pressure may occur)
- Colour **stability and UV** resistant
- Minimal health and safety considerations
- Over-paintable **with all water based and many other systems**
- **Excellent weather resistance** in all climates
- **Does not contain isocyanates, solvents or halogens**

3. Technical Data

Base:	SMX Technology™
Consistency:	Stable paste
Curing System:	Moisture cure
Skin Formation (*): (20°C/50% R.V.)	Ca. 10 min.
Curing Rate (*): (20°C/50% R.V.)	2mm/24h
Hardness (DIN 53505):	20+5 Shore A
Specific Gravity (DIN 53479):	1,57g/mL
Maximum Deformation:	+25%
Temperature resistance:	-40°C to +90°C
Application Temperature:	5°C to +30°C
Elasticity modulus 100%: (DIN 53504)	0.33N/mm ²
Max. Tension: (DIN 53504)	0,82 N/mm ²
Elongation at break: (DIN 53504)	430%
Fire Resistance: (EN 13501-2)**	<= 240 min
VOC (%)	< 2%
VOC (g/litre)	28

* This can vary according to environmental circumstances such as temperature, humidity, substrate, etc.

** this value is dependent on the joint- or penetration seal configuration and joint-or penetration seal dimensions

4. Applications

- Fire retardant expansion and connection joints in the construction industry.
- Fire resistant sealing of connection joints.
- Sealing of fire retardant joints in prefabricated buildings
- Movement joints in high rise constructions

5. Packaging

Sausage 600ml (net content)

6. Shelf Life

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

7. Building Product Information

Manufactured By Soudal NV
Distributed By Soudal Ltd

Relevant Building Code Clauses

- Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years and B2.3.1 (c) 5 years
- Clause C3 Fire Affecting Areas Beyond the Fire Source. Performance clauses C3.1, C3.2, C3.3
- Clause E2 EXTERNAL MOISTURE: Performance E2.3.2.
- Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

Contribution to compliance With NZBC

Performance B2.3.1 (b) 15 years and (c) 5 years: This product achieves these durability requirements and will remain serviceable for 15 years, or more, when installed and maintained in accordance with the relevant Soudal product technical information. soudal.co.nz. Soudal maintains management and production records within its ISO9001:2015 Quality Management System.

Performance C3.1, C3.2, C3.3: This product has been fire tested in various combinations of sealed joints and /or penetrations with different dimensions and different building components. It contributes to meeting the requirements of C3 only when used in these tested combinations. All fire-rated joints must be designed and specified by a registered fire engineer. For more information, such as test certificates, refer to soudal.co.nz.

Performance E2.3.1, E2.3.2: In accordance with E2/AS1 and E2/AS3 (CCANZ CP 01:2014) this product has been tested and is compliant with the ISO11600:2002 Type F, Class 25LM classification, soudal.co.nz. When used to seal flexible joints, as part of a wall cladding system, or around external openings, such as windows and doors, the product contributes to meeting the E2.3.1 and E2.3.2 weather-tightness requirements.

Performance F2.3.1: This product meets this requirement when used and applied in accordance with Soudal's product installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Soudal Product Technical Data sheet and product Safety Data Sheet soudal.co.nz for further information if required.

8. Application Instructions

Surfaces

Substrates: All usual building substrates, treated, PVC,
Preparation: Clean, dry, free of dust and grease
Soudal Soudaseal FR will stick to damp surfaces – a surface is considered wet when moisture transfer occurs from the substrate. Porous surfaces should be primed with Gorilla Primer 150 and Gorilla 696 Surface Activator may be used on non-porous surfaces.

Due to the range of substrates on the market recommend preliminary compatibility tests prior to commencement of application.

Joint Size

Minimum Width: 5mm
Maximum Width: 30mm
Minimum Depth: 5mm
Recommendation: 2 x depth = width

Application

Method: Manual or pneumatic caulking gun
Application temperature: +1°C to +30°C
Clean: Gorilla Solvent Cleaner or 696 Surface Activator immediately after application and before curing
Tooling: Soapy solution before skin formation
Repair: Soudal Soudaseal FR

Resistance to chemical agents

Good resistance to: water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis

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

Limitations

- Soudal Soudaseal FR may be over-painted 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.
- Manual or pneumatic caulking gun
- Soudal Soudaseal FR cannot be used as a glazing sealant.
- Soudal Soudaseal FR is not suitable against the following materials; PE, PP, PTFE (Teflon), Bituminous substrates, Copper or copper containing materials (Copper, Brass, Zinc-Bronze).

Approvals

to AS1530.4 and AS4072.1

- EWFA Report No. 23751-02
- EWFA Report No. 45717-02
- EWFA Report No. 55712700.1

Linier Joints – Vertical & Horizontal – Aerated Concrete

Wall Thickness (mm)	Gap Width (mm)	Seal Depth (mm)	Backing Material	Seal	FRL
200	15	15	Gorilla PEF	Exposed	-/240/240
200	40	20	Gorilla FR Foam & Firecyl	Exposed	-/240/240
200	30	20	Gorilla PEF	Both Faces	-/240/240
200	30	20	Gorilla FR Foam	Exposed	-/240/240
200	25	20	Gorilla FR Foam	Exposed	-/240/240

Linier Joints – Vertical – Concrete, Masonry, Blockwork, Aerated Concrete

Wall Thickness (mm)	Gap Width (mm)	Seal Depth (mm)	Orientation	FRL
75	20	13	Horizontal/Vertical	-/60/60
100	20	25	Horizontal/Vertical	-/120/120

9. Maintenance and Inspection of Weather-Tightness Sealant Joints

Applies to the following joint types:

- Linear joints
- Penetration seals

Inspection

Soudal recommends that the first inspection of joints is done 6 months following application, followed by an annual inspection. Normally this inspection is combined with the inspection of the painting. The most effective is to judge the joints during a colder season as building materials shrink the most under low temperatures, resulting in the widest joints. This period is best to judge if the sealants are still able to cope with the pressure, and if detachments appear.

During inspection specifically pay attention to:

Detachments in facades of buildings can result into leakage. When leakage is noticed but the exact cause and location is unclear, the exact spot should be found by testing. We have two methods for this test:

- Test with a (garden) hose. With a hose the facade can be sprayed. While doing this we work downward towards above, while the inside is checked on water entering the building. When no leakage is found this way, the possibility exists the leakage will only appear when rain and wind pressure are combined at the same moment.
Wind pressure causes over pressure on the outside while under pressure on the inside appears. This can cause water to be sucked inside through very small openings. With higher building the water can be pushed up and find its way into buildings.
- Test with a smoke pipe. With a smoke pipe possible leakages can be identified more easily, especially when wind pressure occurs.

10. Health and Safety Recommendation

- Apply the usual industrial hygiene.
- For more detailed information, please refer to the SDS.

Remark

The directives and data contained in this documentation is provided in good faith and accurately reflect Soudal's knowledge when its products are properly stored, handled and applied under normal conditions in accordance with Soudal's recommendations. In practice, the diversity of the materials, substrates, environments, site conditions, product storage, handling and application are such that no warranty can be given in respect to the merchantability or fit for purpose, of any product. All users must determine the product suitability for their purposes through testing. This technical data sheet and product properties may change without notice so users, suppliers and retailers of Soudal products should always check that the data sheets they have are the latest. To the maximum extent permitted by law, Soudal disclaims all warranties in relation to either the manufacture, storage and end use of the product. All orders are accepted subject to our current terms of trade. **If any clarification is required, please contact Soudal Technical Services or email info@soudal.co.nz.**

Supplier contact details:	Soudal Ltd	Freephone: 0800 70 10 80
	134 Kohia Drive	Phone: (07) 847 5540
	Horotiu	
	Hamilton 3288	Email: info@soudal.co.nz
	New Zealand	Website: www.soudal.co.nz

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