



# Fire Silicone B1 FR

## Product description

Fire Silicone B1 FR is a high-quality, fire-resistant, smoke-tight, neutral, elastic, one component joint sealant based on silicones.

## Properties

- High level of fire retardation
- Sealant for preventing the passage of smoke and gas.
- Very good adhesion on many materials
- Permanently elastic after curing (without fire load)
- Easy to apply
- Good UV resistance
- MEKO free
- Not suitable for natural stone
- Not paintable

## Applications

- Fire retardant expansion and connection joints in the construction industry.
- Is part of the 'Soudal Fire Range' assortment for penetration seals and joints.



## Technical data

|                                |          |                            |
|--------------------------------|----------|----------------------------|
| Base                           |          | Polysiloxane               |
| Consistency                    |          | Stable paste               |
| Curing system                  |          | Moisture curing            |
| Skin formation                 |          | ca. 9 minutes              |
| Curing speed                   |          | ca. 2 mm/24h               |
| Density                        |          | ca. 1.24 g/ml              |
| Maximum allowed joint movement |          | ± 25 %                     |
| Elasticity modulus             | ISO 37   | ca. 0.32 N/mm <sup>2</sup> |
| Elastic recovery               | ISO 7389 | > 90 %                     |
| Elongation at break            | ISO 37   | > 900 %                    |
| Maximum tension                | ISO 37   | ca. 1.45 N/mm <sup>2</sup> |
| Hardness                       |          | ca. 18 ± 5 Shore A         |
| Application temperature        |          | +5°C → +35°C               |
| Temperature resistance         |          | -40°C → +180°C             |
| Fire resistance                |          | ≤ 240 minutes              |

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, free of dust and grease.

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- Substrate preparation  
Porous surfaces should be primed with Primer 150. If needed non porous surfaces can be prepared with a Soudal activator or cleaner (see Technical Data Sheet).
- Substrate types  
Fire Silicone B1 FR has a good adhesion to following substrates: all usual building substrates, wood, concrete, etc.. Fire Silicone B1 FR has no good adhesion or is not suitable for PE, PP, PTFE (Teflon®), bituminous substrates. We recommend a preliminary adhesion and compatibility test on every surface.

## Application method

- Application method  
Apply the product with a manual, pneumatic or accu caulking gun.
- Cleaning method  
Clean with Soudal Surface Cleaner or with Soudal Swipex Wipes, immediately after use. Cured product can only be removed mechanically.
- Finishing method  
With Finishing Solution before skinning.
- Repair method  
Repair with the same material.

## 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

- Various test and classification reports in various accredited testing institutes: IFT Rosenheim, ITB Poland, Warrington Fire Gent, Warrington Fire Australia, Efectis Netherlands, Efectis France, CSTB France, CSI Italy.
- Testresults for penetration seals and/or joints with Fire Silicone B1 FR are freely accessible in the 'Fire Range Application manual Penetration seals and Joints' on the Soudal Website. The corresponding certificates can be obtained through the Soudal sales representatives or trough the Soudal Website.
- Conform ASTM C920 Type S, Grade NS, Class 25, Use T, NT, A and G.

## Joint dimensions

- Consult the 'Fire Range Installation Instructions Openings and Sealing' on the Soudal website for the correct joint dimensions depending on the required fire resistance.

## Environmental clauses

- Leed regulation: Fire Silicone B1 FR 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

- Fire Silicone B1 FR is not paintable

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- Do not use on natural stones like marble, granite,...(staining).
- A total absence of UV can cause a color change of the sealant.
- Discoloration of the product due to chemicals, high temperatures, UV-radiation may occur.
- In an acid environment or in a dark room, a white sealant can slightly turn yellow. Under the influence of sunlight it will turn back to its initial colour.
- When finishing with a finishing- or soapy solution, make sure that the surfaces are not touched by this solution. This will cause the sealant not to adhere to that surface. Therefore we recommend to only dip the finishing tool in this solution.
- We strongly recommend not to apply the Finishing Solution in full sunlight as it will dry very fast in these circumstances.
- Not suitable for bonding aquariums.
- Do not use in applications where continuous water immersion is possible.
- When using different reactive joint sealants, the first joint sealant must be completely hardened before the next one is applied.
- 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.
- Do not use as structural glazing adhesive.
- When applying, make sure not to spill any sealant on the surface of materials next to the joint. Using tape on the surface next to the joint can prevent this.

This technical data sheet replaces all previous versions. The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. It is general in nature and does not constitute any liability. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. Since the design, the quality of the substrate and processing conditions are beyond our control, no liability under this publication is accepted. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application. In every case it is recommended to carry out preliminary experiments. The manufacturer reserves the right to modify products without prior notice.