

PRODUCT DATA SHEET

Sika Firerate®

FIRE RATED JOINT SEALANT

DESCRIPTION

Sika® Firerate is an intumescent fire rated, 1-component, acrylic joint sealant.

USES

Sika® Firerate is designed for fire rated movement and connection joints on porous and non-porous substrates. It is suitable for interior applications.

CHARACTERISTICS/ADVANTAGES

- Up to 4 hours fire resistance according to AS 1530.4
- Very good resistance to weathering
- Movement capability of $\pm 20\%$
- Easy to smooth and very good workability
- Good adhesion to many different substrates
- Water clean-up of uncured sealant

APPROVALS / STANDARDS

- AS 1530.4 FRL
- ISO 717.2 Rw (Ctr) = 64 (-13)

PRODUCT INFORMATION

Chemical Base	1- part acrylic dispersion
Packaging	600ml foil pack, 15 foil packs per box 300 ml cartridge, 20 cartridges per box
Colour	Grey
Shelf Life	Sika® Firerate has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met.
Storage Conditions	Sika® Firerate shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C
Density (ISO 1183-1)	~1.45 kg/L

TECHNICAL INFORMATION

Shore A Hardness (ISO 868)	After 28 days ~30
Movement Capability (ISO 9047)	$\pm 20\%$
Service temperature	-20 °C to +80 °C

JOINT DESIGN

The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 10 mm and ≤ 50 mm. The joint depth shall be ≤ 10 mm. A width to depth ratio of 2:1 must be maintained.

All joints must be correctly designed and dimensioned in accordance with the relevant standards, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints.

Note: Test certificates should be referred to while designing a firerated joint

APPLICATION INFORMATION

CONSUMPTION

Joint Size (W x D in mm)	Metres/Litre	Metres/ Cartridge	Metres/ Sausage
20 x 10	5	1.5	2.5
30 x 15	2.2	0.66	1.1
40 x 20	1.25	0.38	0.63
50 x 25	0.8	0.24	0.4

Backing Material	Use polyethylene foam backing rods
Ambient Air Temperature	5 °C to +40 °C, min. 3 °C above dew point temperature
Substrate Temperature	+5 °C to +35 °C
Curing Rate	at +23 °C / 50 % r.h. ~2 mm/24 h
Skin Time	at +23 °C / 50 % r.h. ~15 min
Tooling Time	at +23 °C / 50 % r.h. ~30 min

SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Sika® Firerate adheres without primers and/or activators.

APPLICATION METHOD / TOOLS

Sika® Firerate is supplied ready to use. After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a foil pack or cartridge into the sealant gun and extrude Sika® Firerate into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sika® Firerate sealant must be firmly tooled against the joint sides to ensure adequate adhesion. It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time. Do not use tooling products containing solvents. Water can be used if wet-tooling is required.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with water. Once cured, residual material can only be removed mechanically.

FURTHER DOCUMENTS

- Safety Data Sheet (SDS)
- AS 1530.4 test report
- AS/ISO 7174:2004 test report
- Brochure Sika Fire Protection Solutions

LIMITATIONS

- Sika® Firerate may be over painted with solvent free paints.
- Do not use Sika® Firerate on damp and/or wet substrates.
- Do not apply Sika® Firerate at temperatures below 5°C
- Do not use Sika® Firerate to seal joints in and around swimming pools.
- Do not use Sika® Firerate to seal joints in external applications on non-porous substrates.
- Do not use Sika® Firerate for joints under water pressure or for permanent water immersion.
- Do not expose uncured Sika® Firerate to rain or water as this may interfere with the curing reaction.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.