BUILDING TRUST

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.

FEATURES

- Up to 4 hours fire resistance according to AS 1530.4
- Very good resistance to weathering
- Movement capability of ±20 %
- Intumescent, expands when exposed to fire or heat above 90°C
- Easy to smooth and very good workability
- Good adhesion to many different substrates
- Water clean-up of uncured sealant
- Can be painted over using water based paints

CERTIFICATES AND TEST REPORTS

- AS 1530.4 FRL
- ISO 717.1 Rw (Ctr) = 64 (-13)

PRODUCT INFORMATION

Composition	1-component acrylic dispersion
Packaging	600ml foil pack, 15 foil packs per carton 300 ml cartridge, 12 cartridges per carton
Colour	Grey
Shelf life	24 months from the date of production
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +25°C. Always refer to packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.
Density	~1.45 kg/l

TECHNICAL INFORMATION

Shore A hardness	~30 (after 28 days)	(EN ISO 868)
Movement capability	±20 %	

Service temperature	Maximum	+80°C
	Minimum	−20°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 width	Joint depth	Joint length per 300ml cartridge	Joint length per 600ml foil pack
10 mm	10 mm	3.00 lm	1.50 lm
20 mm	10 mm	1.50 lm	3.00 lm
30 mm	15 mm	0.65 lm	1.30 lm
40 mm	20 mm	0.38 lm	0.75 lm
50 mm	25 mm	0.24 lm	0.48 lm

Backing material

Use polyethylene foam backing rods

Ambient air temperature	Maximum	+40°C
	Minimum	+5°C
Substrate temperature	Maximum	+35°C
	Minimum	+5°C

Note: The Substrate temperature must be +3°C above dew point temperature and free from frost and ice.

Curing rate	~2.0mm / 24 hours	At +23°C / 50% R.H.	(CQP 049-2)
Skinning time	~15 minutes	At +23°C / 50 % R.H.	(CQP 019-1)

BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTATION

FURTHER DOCUMENTS

- AS 1530.4:2014 test report
- AS/ISO 717.4:2004 test report
- Sika® Passive fire protection solutions

IMPORTANT CONSIDERATIONS

- 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 nonporous 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.
- Sika® Firerate can be overpainted with most conventional water-based coating and paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials. The best over-painting results are obtained when the adhesive is allowed to fully cure first. Note: Non-flexible paint systems may impair the elasticity of the adhesive and lead to cracking of the paint film.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded coatings which could affect adhesion of the primer and sealant. The substrate should be of sufficient strength to withstand with the stress induced by the sealant during movement. Use techniques such as wire brushing, grinding, grit blasting or other suitable mechanical methods to remove all weak substrate material. Repair all damaged joint edges with suitable Sika® repair products. Remove all dust, loose and friable material from all surfaces before application.

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Masking
It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skin time after finishing.

Joint Backing
After the required substrate preparation, insert a suitable backing rod to the required depth.

Application
Prepare the end of the cartridge / foil pack before or after inserting into the sealant gun then fit the nozzle. Extrude Sika® Firerate into the joint ensuringthat it comes into full contact with the sides of the joint and avoiding any air entrapment.

Finishing
As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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.

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