

Sika Firesil[®] Marine N

Fire-rated sealant with low flame spread characteristics

Technical Product Data

Chemical base	1-C silicone
Colour (CQP ¹ 001-1)	Light grey
Cure mechanism	Moisture-curing
Cure type	Neutral
Density (uncured) (CQP 006-4)	1.45 kg/l approx.
Non-sag properties (CQP 061-4 / ISO 7390)	< 2 mm
Application temperature	5 - 40°C (40 - 105°F)
Skin time ² (CQP 019-2)	15 min approx.
Tack-free time ² (CQP 019-1)	120 min approx.
Curing speed (CQP 049-1)	See diagram 1
Shore A-hardness (CQP 023-1 / ISO 868)	25 approx.
Tensile strength (CQP 036-1 / ISO 37)	1.2 N/mm ² approx.
Elongation at break (CQP 036-1 / ISO 37)	700% approx.
Tear propagation resistance (CQP 045-1 / ISO 34)	4 N/mm approx.
100% modulus (CQP 036-1 / ISO 37)	0.4 N/mm ² approx.
Movement accommodation capability (ASTM C 719)	± 25%
Thermal resistance (CQP 513-1)	180°C (355°F) approx.
Short term	4 hours 1 hour
Service temperature	-40 - 150°C approx. (-40 - 300°F)
Shelf life (storage below 25°C) (CQP 016-1)	12 months

¹ CQP = Corporate Quality Procedure² 23°C (73°F) / 50% r.h.³ For further values including design values see calculation value sheet

Description

Sika[®] Firesil Marine N represents a fire retardant one-component, fast-curing silicone sealant, based on a non-corrosive curing system. The cured product provides a soft, elastic seal, supplying excellent resistance to fire even when directly exposed to a nearby heat source.

Sika Firesil[®] Marine N meets the requirements of DIN 4102 B1 and the regulations set out by the International Maritime Organisation (IMO). Sika Firesil[®] Marine N is manufactured in accordance with ISO 9001 quality assurance system and the responsible care program.

Product Benefits

- One-part formulation
- Elastic
- Resists ageing and weathering
- High fire resistance
- Bonds well to a wide variety of substrates

Areas of Application

General purpose sealant for applications requesting fire resistance according to DIN 4102 B1 and as sealing of gaps, cable ducts, grommets etc. where compliance with IMO 653 (16) is required.

This product is suitable for professional experienced users only. Test with original substrates and conditions have to be performed to ensure adhesion and material compatibility.



Cure Mechanism

Sika Firesil[®] Marine N cures by reaction with atmospheric humidity. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly, (see diagram below).

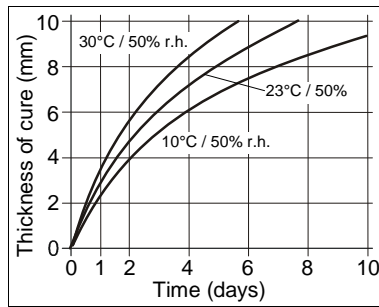


Diagram 1: Curing speed
Sika[®] Firesil Marine N

Chemical Resistance

Sika Firesil[®] Marine N is resistant to UV-radiation, fresh water, seawater and proprietary aqueous cleaning agents; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, concentrated mineral acids, caustic solutions and solvents. The above information is offered for general guidance only. Advice on specific applications will be given upon request.

Method of Application

Surface preparation
Surfaces must be clean, dry and free from all traces of oil, grease and dust.

Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

Cut off the nipple from the thread of the cartridge. Trim the nozzle to the required size. Use a cartridge hand-, air- or battery driven gun.

Tooling and finishing

Tooling and finishing must be carried out within the tack-free time of the sealant. We recommend the use of Sika[®] Tooling Agent N. Other finishing agents or lubricants must be tested for suitability and compatibility.

Removal

Uncured Sika Firesil[®] Marine N can be removed from tools and equipment with Sika[®] Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika[®] Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sika Firesil[®] Marine N is not overpaintable.

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Marine Application Guide

Packaging Information

Cartridge	300 ml
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Value Bases

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.

Health and Safety Information

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Material Safety Data Sheets 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.

Further information available at:
www.sika.co.uk
www.sika.com

Sika Limited
Business Unit Industry
Watchmead, Welwyn Garden City
Herts, AL7 1BQ
United Kingdom
Tel. +44 (0)1707 394444
Fax +44 (0)1707 329129

