

SIMSON ISR 70-03

SILYL MODIFIED POLYMER

KEY BENEFITS

- Multipurpose adhesive & sealant
- Durable and reliable bonds
- Safe for workers and environment

DESCRIPTION

Simson ISR 70-03 is a high quality elastic sealant / adhesive based on Silyl Modified Polymers (SMP). It is suitable as adhesive or sealant for structures in industrial applications requiring high strength.

Simson ISR 70-03 has excellent resistance to UV, weather and temperature and is free of solvents, isocyanates and silicone. It exhibits excellent adhesion performance on a wide variety of substrates (minimal or no pre-treatment necessary) and can be overpainted with common industrial paints.

Simson ISR 70-03 used with the Dual SMP® technology, guarantees an increased and controlled cure speed and reliability in the production process and extends the application possibilities.

APPLICATIONS

- Elastic bonding and sealing in e.g. bus-, caravan-, train- and truck construction
- Bonding and sealing of sunroof systems
- Bonding of roofs on busses, trains, trucks
- Bonding of corner profiles of aluminium or polyester on trailers
- Bonding of polyester parts on metal frames.
- Bonding of floor systems
- Sealing welded seams

FEATURES

- Solvent-, isocyanate- and PVC free
- Very good UV-resistance and ageing properties
- In general good adhesion on several substrates without the use of a primer
- Elastic within temperatures from -40°C till +110°C
- Neutral, odourless and fast curing
- Paint compatible with most industrial paint- or lacquer systems, both alkyd resin and dispersion based (due to the large scale of different types of industrial paints a paint compatibility test is recommended)
- Paintable after skin forming (wet on wet); this will not influence the curing speed

TECHNICAL DATA

CHARACTERISTIC	VALUE	
Basic material	Silyl Modified Polymer (SMP)	
Curing method	Moisture	
Specific gravity	[g/ml]	ca. 1.5
Skin forming time 20°C/50% R.H.	[min]	ca. 10
Open time * 20°C/50% R.H.	[min]	< 15
Curing speed after 24 hrs 20°C/50% R.H.	[mm]	ca. 3
Shore A hardness DIN 53505	ca. 58	
Volume change DIN 52451	[%]	< 3
Tensile stress (100%) DIN 53504/ISO 37	[MPa]	ca. 2
Tensile stress at break DIN 53504/ISO 37	[MPa]	ca. 2.9
Elongation at break DIN 53504/ISO 37	[%]	ca. 250
Shear stress *** DIN 53283/ASTM D1002	[MPa]	ca. 2.5
Tear propagation **** DIN 53515/ISO 34	[N/mm]	ca. 16
E-Modulus (10%) DIN 53504/ISO 37	[MPa]	ca. 3.8
Solvent percentage	[%]	0
Isocyanate percentage	[%]	0
Glass transition (Tg)	[°C]	- 50
Temperature resistance *****	[°C]	- 40 till + 110
Application temperature	[°C]	+ 5 till + 35
UV- and weather resistance	Excellent	
Colours (standard)	White, grey, black,	
Packaging	290 ml cartridges, 400 ml and 600 ml sausages	

* Also available in a longer open time (ISR 70-03 sskf).

** Max. load which can be applied per m² uncured adhesive without sagging

*** Alu-Alu; adh. thickness 2 mm, test speed 50 mm/min.

**** Type C, test speed 500 mm/min.

***** For advice about long exposure to higher temperatures consult Bostik.

ADHESION

In general, Simson ISR 70-03 adheres well without primer on clean, dry, dust- and grease free substrates of aluminium, stainless steel, galvanised steel, zinc, copper, brass, powder coated metal, most lacquered metal surfaces, glass, PVC, polyester (GRP), painted and lacquered wood, etc. No adhesion on untreated polyethylene, polypropylene and teflon. In those cases where, due to great thermal or physical loads and especially under wet conditions, high adhesion demands are needed, the use of Simson Prep M is recommended. Prep M degreases and prepares the surface of the substrate in one step. On plain, untreated wooden surfaces and other porous substrates Simson Prep P is recommended. For more details concerning Prep M and Prep P consult the specific Technical Data Sheets. For not mentioned substrates and additional information consult Bostik.

METHOD OF USE

Simson ISR 70-03 can easily be extruded with a hand- or air pressure gun at temperatures between +5°C and +35°C. In sealing applications ISR 70-03 should be tooled or smoothed within 10 minutes (at 20°C/50% R.H.) with a spatula or putty knife, occasionally moistened with a soap solution. Avoid soap solution penetrating between joint sides and sealant, because this will create loss of adhesion. In bonding applications the substrates have to be assembled within 15 minutes (at 20°C/50% R.H.) after applying Simson ISR 70-03. In general, an adhesive thickness of 2 mm is recommended. At a temperature of +20°C and a relative humidity of 50%, Simson ISR 70-03 can be painted with the most industrial paints already 10 minutes after application. Best adhesion of paint coats is generally obtained if painted within 4 hours after applying Simson ISR 70-03. Cleaning tools or removing uncured residues of Simson ISR 70-03 can be done with a clean colourless cloth, wetted with Simson Liquid 1. It is recommended to make a trial first to check possible attack of the substrate by Liquid 1.

STORAGE STABILITY

Simson ISR 70-03 can be stored for 18 months in cartridges and 12 months in sausages, in an original, unopened container in a dry place at temperatures between +5°C and +30°C.

FURTHER INFORMATION

The following publication is available on request: Material Safety Data Sheets (MSDS).

The information given and recommendations made herein are based on Bostik's research only and are not guaranteed to be accurate. The performance of the product, its shelf life, and application characteristics will depend on many variables, including the kind of materials to which the product will be applied, the environment in which the product is stored or applied, and the equipment used for application. Any change in any of these variables can affect the product's performance. It is the buyer's obligation, prior to using the product, to test the suitability of the product for an intended use under the conditions that will exist at the time of the intended use. Bostik does not warrant the product's suitability for any particular application. The product is sold pursuant to Bostik's Terms and Conditions of Sale that accompanies the product at the time of sale. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute permission, inducement, or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

SMART HELP

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