



## ADHESIVES AND SEALANTS



# ISR 70-05

*The Simson Industrial Special Range is a range of high tech quality products especially developed for industrial applications.*

### Product

ISR 70-05 is a Silyl Modified Polymer (SMP) based adhesive with a high tensile strength and is suitable for making elastic constructive joints. ISR 70-05 can also be used as a sealant. ISR 70-05 has been tested and certified to the International Maritime Organisation Fire Test Procedures for Surface Flammability, resolution A.687 and is approved for bonding deck materials onto steel or aluminium.

ISR 70-05 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 bondings and sealings in e.g. bus-, caravan-, train- and yacht construction.
- 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.

### Features

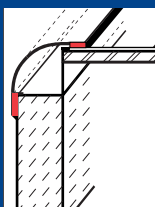
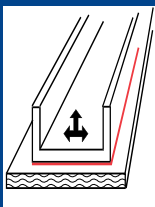
- Solvent-, isocyanate- and PVC free.
- Very good UV-resistance and ageing properties.
- In general good adhesion on several substrates without the use of a primer.
- Permanently elastic in a temperature range of -40°C to +120°C.
- Neutral, odourless and fast curing.
- Paint compatible with most industrial 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 significantly influence the curing speed.

### Adhesion

In general ISR 70-05 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, 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 information data sheets. For not mentioned substrates and additional information consult Bostik.

### Method of use

ISR 70-05 can easily be extruded with a hand- or air pressure gun at temperatures between +5°C and +35°C. In sealing applications ISR 70-05 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.



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In bonding applications the substrates have to be assembled within 15 minutes (at 20°C/50% R.H.) after applying ISR 70-05. In general an adhesive thickness of 2 mm is recommended. At a temperature of 20°C and a relative humidity of 50% ISR 70-05 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 ISR 70-05. Cleaning tools or removing uncured residue of ISR 70-05 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.

### Technical data

Basic material	Silyl Modified Polymer (SMP)
Curing method	moisture
Specific gravity	ca. 1.5 g/ml
Skin forming time	ca. 10 min. (20°C/50% R.H.)
Open time	< 15 min. (20°C/50% R.H.)
Curing speed after 24 hrs	ca. 3 mm (20°C/50% R.H.)
Shore A hardness	ca. 60 (DIN 53505)
Volume change	< 3% (DIN 52451)
Green strength	ca. 500 Pa (Physica Rheometer MC100) (max. load which can be applied per m <sup>2</sup> uncured adhesive without sagging)
Tensile stress (100%)	ca. 2.7 MPa (DIN 53504/ISO 37)
Tensile stress at break	ca. 3.5 MPa (DIN 53504/ISO 37)
Elongation at break	ca. 200% (DIN 53504/ISO 37)
Shear stress	ca. 3.0 MPa (DIN 53283/ASTM D1002) (Alu-Alu; adh. thickness 2mm, test speed 50 mm/min.)
Tear propagation	ca. 17 N/mm (DIN 53515/ISO 34) (Type C, test speed 500 mm/min.)
E-Modulus(10%)	ca. 4.8 MPa (DIN 53504/ISO 37)
Solvent percentage	0%
Isocyanate percentage	0%
Temperature resistance	-40°C till +120°C
Application temperature	+5°C till +35°C
UV- and weather resistance	excellent
Colours (standard)	white, black, grey, sky blue
Packaging	290 ml cartridges, 400 ml and 600 ml sausages, other packaging on request

### Storage stability

ISR 70-05 may be stored for 12 months in a closed (unopened) container in a dry place at temperatures between +5°C and +30°C (cartridges 18 months).

### Further information

The following publications are available on request:

- Material Safety Data Sheets (MSDS)
- Certificates



This product has been tested and certified to the International Maritime Organisation (IMO) Fire Test Procedures for surface flammability. Not only the fire retarding properties are excellent, but also the production quality is ensured and regularly audited by Bureau Veritas, which guarantees the constant quality Bostik stands for.

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**Bostik**  
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