



# ISR 70-05

## SILYL MODIFIED POLYMER

Version: 1.0  
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### DESCRIPTION

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

ISR 70-05 is a Silyl Modified Polymer (SMP) based adhesive with a high tensile strength and is suitable for making elastic constructive joints but can also be used as a sealant. 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 aluminum 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.
- Permanent elastic within temperatures from -40°C till +120°C.
- Neutral, odorless 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
<b>Basic material</b>	Silyl Modified Polymer (SMP)
<b>Curing method</b>	moisture
<b>Specific gravity</b>	approx. 1.5 g/ml
<b>Skin forming time</b> 20°C/50% R.H.	approx. 10 min
<b>Open time</b> 20°C/50% R.H.	<15 min
<b>Curing speed / 24h</b> 20°C/50% R.H.	approx. 3 mm
<b>Shore A hardness</b> DIN 53505	approx. 60
<b>Volume change</b> DIN 52451	< 3%
<b>Tensile stress (100%)</b> DIN 53504/ISO 37	approx. 2.7 Mpa
<b>Tensile stress at break</b> DIN 53504/ISO 37	approx. 3.5 Mpa
<b>Elongation at break</b> DIN 53504/ISO 37	approx. 200%
<b>Shear stress</b> DIN 53283/ASTM D1002 (Alu-Alu; adh. Thickness 2mm, test speed 50 mm/min)	approx. 2.5 Mpa
<b>Tear propagation</b> DIN 53515/ISO 34 (Type C, test speed 500 mm/min)	approx. 17 N/mm
<b>E-Modulus (10%)</b> (DIN 53504/ISO 37)	approx. 4.8 Mpa
<b>Solvent percentage</b>	0%
<b>Isocyanate percentage</b>	0%
<b>Temperature resistance</b>	-40°C till +120°C
<b>Application temperature</b>	+5°C till +35°C
<b>UV- and weather resistance</b>	Excellent
<b>Colours (standard)</b>	black, grey, white
<b>Packaging</b>	290 ml cartridges, 400 ml and 600 ml sausages, 20 L drum and other packaging on request.

## ADHESION

In general ISR 70-05 adheres well without primer on clean, dry, dust- and grease free substrates of aluminum, stainless steel, galvanized 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 is a so called 'wash primer' and 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 sheet. 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 smoothened 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 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 with 4 hours after applying ISR 70-05.

Cleaning tools or removing uncured residue of ISR 70-05 can be done with a clean colorless cloth, wetted with Isopropyl alcohol. It is recommended to make a trial first to check possible attack of the substrates by Isopropyl alcohol.

## STORAGE STABILITY

ISR 70-05 can be stored for 12 months in a closed (unopened) container in a dry place at the temperatures between 0°C and 35°C.

## FURTHER INFORMATION

The following publication is available on request:

- Material Safety Data Sheet (MSDS Sheet)

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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