

# SIMSON ISR 70-03 FR

## SILYL MODIFIED POLYMER

### SMART ADVANTAGES

- World first FR SMP sealant according to EN 45545
- Meets the highest hazard level 3
- Permanent elastic within temperature range -40°C to 100°C

### DESCRIPTION

Simson ISR 70-03 FR adhesive/sealant is the first SMP based technology that anticipates on latest fire protection legislation, meeting the highest hazard levels according to the European standard EN45545.

Simson ISR 70-03 FR is especially developed for mass transit industry, which complies with interior and exterior sealing requirements for all design and operation categories as described in EN45545. ISR 70-03 FR demonstrates mechanical properties necessary for elastic bonding.

Simson ISR 70-03 FR is a good compromise of an adhesive and sealant, suitable for elastic constructions in industrial applications. SMP based ISR products has excellent resistance to UV, weather and temperature and are free of solvents, isocyanates and silicone. These products exhibit a very good adhesion performance on a wide variety of substrates (limited or no pre-treatment necessary).

### APPLICATIONS

- Interior and exterior sealing in train constructions that require fire retardation
- Elastic bonding in mass transit constructions e.g. train, bus & coach
- Sealing welded seams

### FEATURES

- Fire retardant according to European standard EN45545
- Non-Halogenated
- 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 temperature range - 40°C to + 100°C
- Neutral, odourless and fast curing

### TECHNICAL DATA

CHARACTERISTIC	VALUE
<b>Basic material</b>	Silyl Modified Polymer (SMP)
<b>Curing method</b>	Moisture
<b>Specific gravity</b> [g/ml]	approx. 1.4
<b>Skin forming time</b> 20°C/50% R.H. [min]	approx. 10
<b>Open time</b> 20°C/50% R.H. [min]	< 10
<b>Curing speed / 24h</b> 20°C/50% R.H. [mm]	approx. 3
<b>Shore A hardness</b> DIN 53505	approx. 50
<b>Volume change</b> DIN 52451 [%]	< 3
<b>Tensile stress (100%)</b> DIN 53504/ISO 37 [MPa]	approx. 1.8
<b>Tensile stress at break</b> DIN 53504/ISO 37 [MPa]	approx. 3.0
<b>Elongation at break</b> DIN 53504/ISO 37 [%]	approx. 200
<b>E-Modulus (10%)</b> DIN 53504/ISO 37 [MPa]	approx. 3
<b>Shear stress *</b> DIN 53283/ASTM D1002 [MPa]	approx. 2.0
<b>Tear propagation **</b> DIN 53515/ISO 34 [N/mm]	approx. 10
<b>Solvent percentage</b> [%]	0
<b>Isocyanate percentage</b> [%]	0
<b>Temperature resistance</b> [°C]	- 40 till + 100
<b>Application temperature</b> [°C]	+ 5 till + 35
<b>UV- and weather resistance</b>	Excellent
<b>Oxygen index</b> EN 45545, EN ISO 4589-2	Hazard Level 3 (R22)
<b>Smoke density</b> EN 45545, EN ISO 5659-2	Hazard Level 3 (R22)
<b>Toxicity</b> EN 45545, NF X 70-100-1/-2	Hazard Level 3 (R22)
<b>Colours (standard)</b>	White, black
<b>Packaging</b>	290 ml cartridges, 600ml sausages

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

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

## ADHESION

In general, Simson ISR 70-03 FR adheres well without primer on clean, dry, dust- and grease free substrates of glass, (anodized) aluminium, stainless steel, glass fibre reinforced polyester (GRP), 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, adhesion demands are needed, the use of Simson Prep M is recommended. Continuous water immersion should be avoided. Prep M degreases and prepares the surface of the substrate in one step. For more details concerning Prep M consult the specific Technical Data Sheets. For not mentioned substrates and additional information consult Bostik.

## METHOD OF USE

Simson ISR 70-03 FR can easily be extruded with a hand- or air pressure gun at temperatures between + 5°C and + 35°C. Simson ISR 70-03 FR should be tooled or smoothened within 20 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.

Cleaning tools or removing uncured residue of Simson ISR 70-03 FR 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 FR can be stored for 12 months in an original unopened container in a dry place at temperatures between + 5°C and + 30°C.

## FURTHER INFORMATION

The following publications are available on request:

- Material Safety Data Sheets (MSDS)
- EN 45545 for interior and exterior sealing applications:
  - Oxygen index, EN ISO 4589-2  
Hazard Level 3
  - Smoke density, EN ISO 5659-2  
Hazard Level 3
  - Toxicity, NF X 70-100-1/-2  
Hazard Level 3

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## SMART HELP

Please contact your local representative

