



ADHESIVES AND SEALANTS



MSR Construction Adhesive

The Simson Marine Special Range is a range of products especially developed for nautical applications.

Product

MSR Construction Adhesive is a one component, permanently elastic, fast curing construction adhesive, based on Silyl Modified Polymer (SMP) and has been specially developed for bonding and sealing applications in the yacht- and boat building industry. MSR Construction Adhesive has been tested and certified to the International Maritime Organisation Fire Test Procedures for Surface Flammability, resolution A.653(16) and has been approved for use in wall, ceiling and floor applications.

MSR Construction Adhesive 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

Bondings and sealings in nautical applications, where adhesion and deformability have to comply to extreme requirements.

Typical applications include

- Bonding push borders.
- Bonding and sealing deck fittings.
- Bonding deck coverings.
- Bonding sheets.
- Bonding and sealing deck/hull connections.
- Bonding deck hatches and portholes.
- As bedding compound whenever a higher initial strength is required (slow skin forming version is recommended).

Features

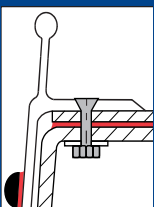
- Solvent free and isocyanate free.
- Very good UV-resistance and ageing properties; long time resistance against fresh and salt water.
- Good adhesion on commonly used materials without the use of a primer.
- Permanently elastic in a temperature range of -40°C to $+100^{\circ}\text{C}$.
- Neutral, odourless and fast curing.
- Paint compatible with most industrial paint or lacquer systems, both alkyd resin and dispersion based (because of the large number of different types of industrial paints a paint compatibility test is recommended, please contact Bostik for advise).
- Can be sanded after curing.
- MED Certified by Bureau Veritas: IMO Resolution A.653(16).

Adhesion

In general MSR Construction Adhesive 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 case of extreme environmental circumstances, like high thermal or mechanical loads and especially humid conditions, the use of a primer is recommended.



Marine •





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Use Simson Primer M on metal or other closed substrates. Use Simson Primer P on porous substrates like wood. For more details concerning Primer M and Primer P consult the specific technical information data sheet. In case of any uncertainties and for additional information consult Bostik.

Method of use

MSR Construction Adhesive can be extruded easily with a hand- or air pressure mastic gun. In sealing applications MSR Construction Adhesive should be tooled or smoothed within 10 minutes; in bonding applications the substrates have to be assembled within 15 minutes (at 20°C/50%R.H.). In general an adhesive thickness of 2 mm is recommended.

Paint compatibility: MSR Construction Adhesive is compatible with most industrial paints and lacquers. MSR Construction Adhesive can be used for finishing/sealing welded sheets before they are sprayed with lacquers, thus contributing to corrosion protection. Because of its fast skin forming, MSR Construction Adhesive can be painted after 10 minutes (at 20°C/50%R.H.). The applied paint layer has no significant influence on the curing rate of MSR Construction Adhesive. Removing uncured residues of MSR Construction Adhesive or cleaning tools can be done with a clean, colourless cloth, wetted with Simson SMP Remover or Simson Cleaner E. It is recommended to make a trial first to check possible harmful effects of these cleaners on the substrate.

Technical data

Basic material	Silyl Modified Polymer (SMP)	
Curing method	moisture	
Specific gravity	ca. 1.4 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. 55	(DIN 53505)
Volume change	< 3%	(DIN 52451)
Green strength	ca. 300 Pa	(Physica Rheometer MC100)
	(max. load which can be applied per m ² uncured adhesive without sagging)	
Tensile stress (100%)	ca. 2.0 MPa	(DIN 53504/ISO 37)
Tensile stress at break	ca. 3.0 MPa	(DIN 53504/ISO 37)
Elongation at break	ca. 225%	(DIN 53504/ISO 37)
Shear stress	ca. 2.5 MPa	(DIN 53283/ASTM D 1002)
	(Alu-Alu; adh. thickness 2 mm, test speed 50 mm/min.)	
Tear propagation	ca. 15 N/mm	(DIN 53515/ISO 34)
	(Type C, test speed 500 mm/min.)	
Solvent content	0%	
Isocyanate content	0%	
Temperature resistance	-40°C to +100°C	
Application temperature	+5°C to +35°C	
UV- and weather resistance	excellent	
Colours	white, light grey, black	
Packaging	290 ml cartridges, 400 ml and 600 ml sausages, other packaging on request	

* Also available in slower skin forming time of ca. 20 min. and open time of ca. 35 min.

Storage stability

MSR Construction Adhesive can 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 Sheets)
- 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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