MOMENTIVE
performance materials

Technical Data Sheet

Silopren* Bonding Agent 1-1

Product Description

Silopren Bonding Agent 1-1 is a one-component translucent bonding agent for liquid silicone rubber (LSR) that enables particularly the production of parts for the high voltage insulation industry.

Key Performance Properties

Silopren Bonding Agent 1-1 is distinguished by the following properties:

- Good adhesion to many substrates
- Easily applicable

Specifications

Typical Product Data cannot be used for specifications. Assistance and specifications are available by contacting Momentive Performance Materials or the next Sales Office.

Typical Product Data

Typical Properties of Silopren Bonding Agent 1-1:			
Appearance			transparent, colourless to yellowish
Density	DIN 51 757	g/cm³	0.867
Viscosity, $\dot{\gamma}$ = 10 s^{-1} at 20°C	DIN 53 018	mPa · s	1.19

These typical data are only intended as a guide and should not be used in preparing specifications.

Containers

Silopren Bonding Agent 1-1 is available in 0.7 kg bottles and in 4.0 kg cans.

Instructions for Use

Before application, **Silopren Bonding Agent 1-1** should be stirred thoroughly for 1 to 5 minutes. The mixture is a solution of silicone resins and hydrolysable silanes in solvent. The primer can be applied by brushing, dipping, or spraying. The single application of the solution to a clean and degreased substrate results in the formation of a film once the solvent is evaporated after a air-drying time of about 30 minutes at room temperature. During the vulcanization process this film provides a tight bonding to the liquid silicone rubber (LSR). A thin and uniform film usually provides the strongest bond. For further information please contact Momentive Performance Materials.

Experience has shown that good bonding was achieved on glass-fibre epoxy composite and glass surfaces as well as metallic surfaces like aluminium or steel. However we recommend that the proposed materials are subjected to suitability tests before being used since it is known that alike substrates can show different surface properties depending on their manufacturing process. The properties and the quality of the surface are known to influence the adhesion strength.

To obtain the best results, the following steps have to be followed:

1. Clean and degrease the surface using a pad or cloth with isopropanol or ethanol. Allow the surface to dry. Ensure that no residues are on the surface.
2. Coat the bonding agent uniformly over the substrate by brushing, dipping or spraying.
3. Under normal temperature and humidity conditions the bonding agent should air-dry for about 30 minutes. After this step, it is not recommended to bake the resulting film.
4. Apply liquid silicone elastomer (LSR) and vulcanize.

Results of adhesion testing between **Silopren Bonding Agent 1-1** and various substrates and Silopren LSR Electro 242-1 in accordance to DIN 53 289

With Silopren LSR 242-1	
	Peel Strength (N/mm)
Aluminium	> 5.0
Steel	> 5.0
Glass	> 5.0
Glass-fibre epoxy composite	> 5.0

These typical data are only intended as a guide and should not be used in preparing specifications.

Handling and Safety

Silopren Bonding Agent 1-1 contains flammable solvents and therefore must not be processed near ignition sources. It is important to ensure that the workplace is well ventilated and that direct contact with the skin and eyes is avoided. Material Safety Data Sheets are available upon request from Momentive Performance Materials. Similar information for other chemicals used with Momentive Performance Materials products may be obtained from your suppliers.

Storage Period

Silopren Bonding Agent 1-1 should be stored under dry and cool (approx. 20 °C) condition in the original sealed containers. It has a shelf-life of 12 months from the date of manufacturing. Please see also use-before/expiry date on product label and certificate the Momentive Performance Materials sales office nearest you. Before handling any of the products mentioned in the text, please obtain available product safety information and take necessary steps to ensure safety of use.

Availability

Silopren Bonding Agent 1-1 may be ordered from your regular sales contact or please call Momentive Performance Materials, Bergen-op-Zoom, Netherlands at 00800-4321-1000 to find out which is the nearest sales office to you.

PRINCIPAL LOCATIONS – Regional Information

North America	World Headquarters 187 Danbury Road Wilton, CT 06897, USA	T 800.295.2392	F 607.754.7517
Latin America	Rodovia Eng. Constâncio Cintra, Km 78,5 Itatiba, SP – 13255-700, Brazil	T +55.11.4534.9650	F +55.11.4534.9660
Europe, Middle East, Africa and India	D-51368 Leverkusen Germany	T 00.800.4321.1000 T +31.164.225350	F +31.164.241.750
Pacific	Akasaka Park Building - 5-2-20 Akasaka Minato-ku, Tokyo 107-6112 Japan	T +81.3.5544.3100	F +81.3.5544.3101

CUSTOMER SERVICE CENTERS

North America	Charleston, WV 25314, USA E cs-na.silicones@momentive.com		
	• Specialty Fluids	T 800.523.5862	F 304.746.1654
	• UA, Silanes, Resins, and Specialties	T 800.334.4674	F 304.746.1623
	• RTV Products-Elastomers	T 800.332.3390	F 304.746.1623
	• Sealants and Adhesives & Construction	T 877.943.7325	F 304.746.1654
Latin America	E cs-la.silicones@momentive.com		
	• Argentina & Chile	T +54.11.4862.9544	F +54.11.4862.9544
	• Brazil	T +55.11.4534.9650	F +55.11.4534.9660
	• Mexico & Central America	T +52.55.5899.5135	F +52.55.5899.5138
	• Venezuela, Ecuador, Peru, Colombia, & Caribbean	T +58.212.285.2149	F +58.212.285.2149
Europe, Middle East, Africa and India	E cs-eur.silicones@momentive.com	T 00.800.4321.1000 T +31.164.225350	F +31.164.241750
Pacific	E cs-ap.silicones@momentive.com		
	• Japan	T +81.276.20.6182	
	• China	T +86.21.5050.4666 (ext. 1523)	
	• Korea	T +82.2.6201.4600	
	• Singapore	T +65.6220.7022	
Worldwide Hotline	Worldwide Web www.momentive.com	T 800.295.2392 T +607.786.8131	F +607.786.8309

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