

LA322S

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Description

LA322S is a one-component, thixotropic, heat curable silicone adhesive that is an excellent candidate to consider for electrical and electronic applications. This product cures with heat in a short period of time.

Key Features and Benefits

- Easy to use - one component system
- Semi-flowable consistency
- Heat accelerated cure
- Primerless adhesion to many substrates – plastics, metals, ceramics and glass
- Non-corrosive to metals
- Excellent high and low temperature resistance

Typical Physical Properties

UNCURED PROPERTIES	
Appearance	Light blue, semi-flowable
Viscosity (23C)	90
CURED PROPERTIES (90min @ 125°C)	
Appearance	Elastic rubber
Density (23° C), g/cm ³	1.26
Hardness (Type A)	37
Tensile Strength, MPa {kgf/cm ² }	3.6 {37}

Elongation %	230
Adhesive Strength ⁽¹⁾ , MPa {kgf/cm ² }	2.5 {25}
Volume Resistivity, Ω·cm	1.0x10 ¹⁵
Dielectric Strength, kV/mm	25
Dielectric Constant (60Hz)	3.1
Dissipation Factor (60Hz)	0.006
Linear Expansion, 1/K	2.1x10 ⁻⁴
Thermal Conductivity ⁽²⁾ , W/(m·K) {cal/(cm·s·°C)}	0.29 {6.9x10 ⁻⁴ }

(1) Aluminum lap shear

(2) In-house test method

Typical property data values should not be used as specifications.

Assistance and specifications are available from Momentive Performance Materials.

Potential Applications

Sealing and adhesive between plastics and metals/ceramics in various electronic parts:

- Semiconductor modules
- Automotive electronics units
- Home appliance assemblies

Processing Recommendations

General Instructions for Use

- Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc. that may be present on the surface of the substrate can inhibit curing.
- A sample area should always be checked before proceeding, to determine compatibility.
- Parts should be as clean and dry as possible prior to application.

- Maintain adequate ventilation in the work place at all times.
- Allow the contents to cool before opening the container, to avoid condensation.

Cure Time vs. Temperature

Actual cure time will depend on the type and efficiency of the oven used, and the shape and heat capacity of the parts and containers. A sample test should be conducted to determine the appropriate cure time. Typical cure times and temperatures are as follows:

Temperature (°C)	Cure time (hours)
100	3
120	1.5
150	1

Note: Test data. Actual results may vary.

Adhesion Capability

Suitable Substrates

- Metals: Aluminum, Copper, Ni plate, Stainless steel
- Plastics: PPS, PBT, Epoxy resin, Polyester, Phenolic resin
- Rubber: Heat cured silicone rubber
- Inorganics: Glass, Ceramics

Unsuitable Substrates

- Plastics: PP, PE, Fluorocarbon resin
- Rubber: Silicone RTV, Sulfur vulcanized rubber,
- Fluorocarbon rubber

Surface Preparation

The adhesive performance of any polymer system is highly dependent upon proper surface preparation. In order to maximize the adhesion of LA322S silicone adhesive and minimize the potential for cure inhibition, all parts should be as clean and dry as possible prior to the application of the adhesive.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas

Latin America

EMEAI- Europe, Middle

ASIA PACIFIC

+1 800 295 2392	Brazil	East, Africa & India	China
Toll free*	+55 11 4534 9650	Europe	800 820 0202
+704 805 6946	Direct Number	+390510924300	Toll free
Direct Number		Direct number	+86 21 3860 4892
			Direct number
*All American countries	Mexico	India, Middle East & Africa	Japan
	+52 55 2169 7670	+ 91 44 71212207	+81 3 5544 3111
	Direct Number	Direct number*	Direct number
		*All Middle Eastern countries, Africa, India,	Korea
			+82 2 6201 4600

For literature and technical assistance, visit our website at: www.momentive.com

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