

Thermally Conductive Silicone Adhesive

TIA219R

Formulated Products Sector,
Electronics Business Technology, C&I
Momentive Performance Materials Japan

TIA219R is a two-component, heat curable silicone rubber designed for thermally conductive applications. TIA219R cures with heat to form an elastic, thermally conductive rubber and adheres well to various types of materials such as metals, plastics, glass and ceramics without the use of primers. TIA219R quickly cures with exposure to heat to a soft rubber that helps relieve stress on critical electronic components.

Key Features

- ◆ Convenient 1:1 mix ratio by weight
- ◆ Heat accelerated cure / RT cure and adhesive
- ◆ Excellent thermally conductivity
- ◆ Excellent adhesive properties ; primer less adhesion to many types of substrates
- ◆ Resistance to temperature extremes
- ◆ Non-corrosive to metal
- ◆ UL 94 V-0 (equivalent)

Typical Properties

Uncured Properties (23°C)	TIA219R(A)	TIA219R(B)
Appearance	Gray	White
Viscosity Pa·s	9	7
Mix ratio by weight	1 : 1	
Viscosity After mixing Pa·s	8	
Pot Life hr.	0.5	
Cure condition (Heat) C/h	70/0.5	
Cure condition (RT) h	24	
Cured Properties (0.5hr.@70°C)		
Appearance	Elastic rubber, White	
Density g/cm ³	2.70	
Hardness (Type E)	50	
Tensile strength MPa	0.8	
Elongation %	100	
Adhesion strength * MPa	0.6	
Thermal conductivity W/m·K	1.9	
CTE ppm/K	150	
Volume resistivity MΩ·m	4.8 x 10 ⁶	
Dielectric strength kV/mm	18	
LV (D3-10) ppm	200	

* Aluminum Lap Shear

Typical property data values should not be used as specifications.

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General Instructions for Use & Storage

- ◆ Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc. contained in the surface of the substrate can inhibit curing. A sample patch should always be conducted before proceeding to determine compatibility.
- ◆ Wear eye protection when handling uncured rubber as it can irritate eyes. In case of eye contact, immediately flush eyes well with water and contact a physician.
- ◆ Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc.
- ◆ Maintain adequate ventilation in the work place at all times.
- ◆ Store in cool dry place out of direct sunlight.
- ◆ Keep out of the reach of children.

The logo for Silicone Solutions, featuring the words "SILICONE" and "SOLUTIONS" in a stylized, blue, sans-serif font. The letters are outlined and have a slight 3D effect.The Momentive logo, consisting of the word "MOMENTIVE" in a bold, blue, sans-serif font. The letter "V" is stylized with a red and orange gradient.

A1 DISTRIBUTOR

For additional technical & application information:

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