TECHNICAL DATA SHEET SIA0030

25/02/2020

DESCRIPTION:

Tacusil™ SIA0030 is a two-part thermally conductivity silicone base gap filler and special design for EV battery package heat sink. It can completely cure at room temperature to a flexible polymer with very low hardness and stress in the curing process. It contains abrasive aluminum oxide filler which introduces wear considerations for wetted components and designed for the big volume potting and provides very good resistance to chemicals, solvent, acids and water etc.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

Property:	*Value:*	*Test Method or Source:*
Color	Gray	Visual
Mix Ratio **By Weight** **By Volume**	Part A to Part 1 to 1 1 to 1	
Cure Schedule	24 hours @RT or 1 hours @80°C	
Viscosity: **Part A** **Part B** **Mixed**	 135,000 cps 150,000 cps 145,000 cps	Rheometer parallel plate 25mm@1/s 45530006291
Specific Gravity **Part A** **Part B** **Mixed**	 2.9 2.9 2.9	Calculated
Pot Life	60 mins	453560822627
Glass Transition Temperature/Tg	-40 °C	453560822409 by DSC
Hardness	75 Shore A	455300006287/ASTM D2240
Water Absorption	0.3% after 24 hours	457561824543/ASTM D570
Thermal Conductivity	2.95 W/m.K	ASTM 5470D
Tensile Properties **Strength** **Elongation**	 3.2 MPa 20%	 455300006285/ASTM D638/ MTS 4535601224470/ASTM D638/Instron
Tear Strength	1.5 N/mm	455300006547/ASTM D624, Tear Die B/MTS
Compressive Strength	800 psi	455300006265/ASTM D695/MTS
Coefficient of Thermal Expansion by TMA	175 ppm/ °C	455300005340/ASTM E831 TMA, 5°C/min
Surface Resistivity	2.51 x 10^{15} ohm/sq. cm	455300006612/ASTM D257
Volume Resistivity	6.18 x 10^{15} ohm-cm	

Dielectric Strength	420 V/mil	ASTM D149 Method A, immersed in ASTM D3487 Type II Oil
Non-volatile content	99.99%	455300005646
Temperature Range	-40~200 °C	

This TDS contains values that have been updated. The values reported in this technical data sheet are typical values of the product, and are highly dependent on test conditions and methodology. We actively seek the most precise and accurate ways to measure and interpret performance of our products, and to update estimated values with measured values. The formula has not been revised or changed in any way. Although the values on paper have changed, you can expect the same performance of the product.

INSTRUCTIONS:

1. Bulk format: weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
2. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
3. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE: 9 months at 25 °C in bulk package
Specialty packaging may be less.