

## TECHNICAL DATA SHEET SIA0030

11/08/2021

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### **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 very 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.

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

Property:	Value:	Test Method or Source:
Color		Visual
Part A	White	
Part B	Gray	
Mixed	Gray	
Mix Ratio	Part A to Part B	Calculated
By weight	1 to 1	
By volume	1 to 1	
Cure Schedule	RT 24hours or 1hour@80C	
Viscosity – Part A	300000 cps @1/s	Rheometer parallel plate 25mm@1/s
Viscosity – Part B	300000 cps @1/s	455300006291
Viscosity - Mixed	300000 cps @1/s	
Specific Gravity – Part A	2.9	Calculated
Specific Gravity – Part B	2.9	
Specific Gravity - Mixed	2.9	
Pot Life,	1 hour	Rheometer parallel plate 25mm@1/s
Glass Transition Temperature/Tg	-40 °C	by DSC
Hardness	60 Shore OO	ASTM D2240
Water Absorption	0.3% after 24 hours	ASTM D570
Tensile Properties:		ASTM D638/MTS
Strength	10PSI	ASTM D638/Instron
Elongation	30%	
Thermal Conductivity by hot disk	2.95 W / (m.K)	453560822409/ASTM E1461
Surface Resistivity	2.51 x 10 <sup>15</sup> ohm/sq	455300006612/ASTM D257
Volume Resistivity	6.18 x 10 <sup>15</sup> ohm-cm	
Dielectric Strength	420 V/mil	ASTM D149 Method A, immersed in ASTM
Non volatile content	99.99 %	D3487 Type II Oil 455300005646
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Coefficient of Thermal Expansion by TMA	225 ppm/ °C	455300005340/ASTM E831 TMA, 5 °C/min
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#### **INSTRUCTIONS:**

TACUSIL MAKES NO EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY, FITNESS OR OTHERWISE with respect to its products. In addition, while the information contained herein is believed to be reliable, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. All recommendations or suggestions for use are made without guarantee inasmuch as conditions of use are beyond our control. The properties given are typical values and are not intended for use in preparing specifications. Users should make their own test to determine the suitability of this product for their own purposes.

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- 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.