TECHNICAL DATA SHEET SIA0210TC

3/22/2023

DESCRIPTION:

Tacusil SIA0210TC is two parts silicone potting material with high thermal conductivity. It's low viscosity, low hardness and cure well without catalyst poison phenomenon. It can be reworkable and easily peeled off without residue, special for the application in Fiber Optic Device Assembly.

Properties and Benefits:

- High Thermal conductivity
- No sticky on surface
- No catalyst poison.
- Reworkable

TYPICAL PROPERTIES:

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

Property:	*Value:*	*Test Method or Source:*
Color	Clear	Visual
Mix Ratio **By weight** **By volume**	Part A to Part B 2 to 1 2 to 1	Calculated
Full Cure Schedule	24 hours @RT	
Viscosity – Part A **Viscosity – Part B** **Viscosity - Mixed**	13500 cps @1/s 2500 cps @1/s 6500 cps @1/s	Rheometer parallel plate 25mm@1/s
Specific Gravity - Mixed	2.2	Calculated
Pot Life, defined as the time it takes for initial mixed viscosity to double	15 minutes	Rheometer parallel plate 25mm@1/s
Tack free time/RH 50%	60 minutes/10cc sample	
Hardness	30 Shore A	ASTM D2240
Water Absorption	0.1% after 24 hours	ASTM D570
Tensile Properties: **Strength** **Elongation**	 200 psi 38%	ASTM D638/MTS
Modules	0.2Mpa	ASTMD 638
Thermal conductivity	2.0W/M.K	ASTM 5470D
Volume Resistivity	3.1×10^{14} ohm-cm	ASTM D257
Dielectric Strength	400 V/mil	ASTM D149 Method A
Bulk Resistivity	2*10E15 ohm-cm	Jandel 4 point probe
Non volatile content*	99.9 %	

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Coefficient of Thermal Expansion by TMA	170ppm/ °C	ASTM E831
Service temperature**	-50~180C	

* Asterisk denotes values considered typical to associated resin systems or extrapolated from other test results.
** Temperature Rating is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.
*** 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. Wipe off the dust, oil and other impurities on substrate with MEK, IPA or other organic solvent to ensure adhesive's adhesion to substrate.

2. Ambient RH% only will affect its tack free time, don't its properties after full cure

3. Bring both components to room temperature prior to mixing. Even it's no filler in part A, stirring it until homogeneous is necessary before using, and then 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.

4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.

5. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE:

12 months at 25 °C
Specialty packaging may be less.

SILICONE
Addition cure silicones contain a catalyst that is susceptible to inhibition. Common sources of inhibition include: amines or amine-containing compounds, sulfur or sulfur-containing compounds, organotin catalyst or plastics containing organotin catalyst, unsaturated hydrocarbon plasticizers, and solder flux residues. Uncured or partially cured product at the site of the suspected source of inhibition indicates incompatibility.

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