



# TECHNICAL DATA SHEET SIA0210-15

8/22/2023

## DESCRIPTION:

Tacusil SIA0210-15 is two-part high viscosity silicone potting. It's water clear with long elongation, low hardness and stress in curing process. It can be reworkable and pass long time HTHM test, special for application in fiber optic device assembly and lighting components potting

## Properties and Benefits:

- ❖ High viscosity and fill small gap without leakage
- ❖ Water clear
- ❖ Long elongation
- ❖ Reworkable

## TYPICAL PROPERTIES:

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

<b>Property:</b>	<b>Value:</b>	<b>Test Method or Source:</b>
Color	Clear	Visual
Mix Ratio	Part A to Part B	Calculated
By weight	1 to 1	
By volume	1 to 1	
Full Cure Schedule	24 hours @RT	
Viscosity – Part A	50000 cps @1/s	Rheometer parallel plate 25mm@1/s
Viscosity – Part B	28000 cps @1/s	
Viscosity - Mixed	38000 cps @1/s	
Specific Gravity - Mixed	1.12	Calculated
Pot Life, defined as the time it takes for initial mixed viscosity to double	40 minutes	Rheometer parallel plate 25mm@1/s
Gel Time	90 minutes/10cc sample	Sunshine Gel Timer
Hardness	25 Shore A	ASTM D2240
Water Absorption	0.1% after 24 hours	ASTM D570
Tensile Properties:		ASTM D638/MTS
Strength	100 psi	
Elongation	400%	
Modules	0.2Mpa	ASTMD 638
Volume Resistivity	6.18 x 10 <sup>15</sup> ohm-cm	ASTM D257
Dielectric Strength	460 V/mil	ASTM D149 Method A
Bulk Resistivity	2*10E13 ohm-cm	Jandel 4 point probe
Non volatile content*	99.9 %	
Coefficient of Thermal Expansion by TMA	200ppm/ °C	ASTM E831

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<b>Service temperature**</b>	-50~180C	
<b>Transmittance</b>	95% @ 6mm	ASTM D1003, Procedure A

\* 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. Strong acid and oxidant contacting will lower its curing speed and lengthen its cure time.
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.