



TECHNICAL DATA SHEET SIA0210-11

10/22/2022

DESCRIPTION:

Tacusil SIA0210-11 is two-parts additive silicone potting adhesive. It's water clear with long elongation, low hardness and stress in curing process and post HTHM test process. It can be reworkable and easily peeled off without residue, special for the application in Fiber Optic Device Assembly. It's update version of Tacusil SIA0210 in transparency and modification in mix ratio.

Properties and Benefits:

- ❖ High transparency
- ❖ Long elongation
- ❖ Reworkable
- ❖ Mix ratio 1:1 by Weight

TYPICAL PROPERTIES:

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

| <i>Property:</i> | <i>Value:</i> | <i>Test Method or Source:</i> |
|---|------------------------------|-----------------------------------|
| 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 | 4800 cps @1/s | Rheometer parallel plate 25mm@1/s |
| Viscosity – Part B | 4500 cps @1/s | |
| Viscosity - Mixed | 4600 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 | 70 minutes/10cc sample | Sunshine Gel Timer |
| Hardness | 20 Shore A | ASTM D2240 |
| Water Absorption | 0.1% after 24 hours | ASTM D570 |
| Tensile Properties: | | ASTM D638/MTS |
| Strength | 80psi | |
| Elongation | 170% | |
| Modules | 0.2Mpa | ASTMD 638 |
| Volume Resistivity | 6.18×10^{15} ohm-cm | ASTM D257 |
| Dielectric Strength | 410 V/mil | ASTM D149 Method A |
| Bulk Resistivity | 2×10^{15} ohm-cm | Jandel 4 point probe |
| Non volatile content* | 99.9 % | |

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|------------------------------|-----------|-------------------------|
| Service temperature** | -50~200C | |
| Transmittance | 96% @ 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, and maybe cause it don't 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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