

# SILICONE ADHESIVE TAD-O-SI-1C

thermally conductive 1 part / addition cure

TAD-O-SI-1C is an addition cure corrosion-free highly thermally conductive 1 part silicone adhesive. It cures at elevated temperature over 100°C to a strong but still elastic rubber and exhibits excellent primerless adhesion to most surfaces. The adhesive features high thermal conductivity and a thixotropic rheology that will prevent slumping or flow during the process. It allows for being operated at temperatures up to 210°C and does not corrode copper or its alloys when fully cured. It is characterised by high resistance to water, acids, bases and most organic solvents and is especially suitable for applications where high thermal conductivity, adhesion, fast curing and controlled, precision application are essential.



Release 10 / 2024

## PROPERTIES

- Thermal conductivity: 2.1 W/mK
- High bonding properties
- Heat cure
- Non corrosive
- Thixotropic rheology preventing flow during the process
- High operating temperatures up to 210°C
- Extraordinary chemical resistance and longterm stability

## AVAILABILITY

- 1 kg jars
- 310 ml cartridges
- Bulk packaging options on request
- Optional with glass beads

## APPLICATION EXAMPLES

- LED systems
- Processor cooling
- Memory chip assembly
- CPU boards

Technical Data Sheet

PROPERTY	UNIT	TAD-O-SI-1C
<b>MATERIAL</b>		
Colour		Grey
Physical state		Paste
Specific Gravity	g/cm <sup>3</sup>	2.18
Viscosity	Pas	140
Hardness	Shore A	56
Tensile Strength	MPa	2.20
Elongation at Break	%	105
Overlap Shear Strength (Al)	kg/cm <sup>2</sup>	7.68
Curing Time (3 mm @ 125°C / @ 100°C) <sup>1</sup>	min	10 / 16
Shelf Life (from Date of Manufacturing, unopened, @ -5 - 10°C)	Months	12
Flammability	UL 94	HB (1.5 mm, V0 6.0 mm)
RoHS Conformity	2015 / 863 / EU	Yes
<b>THERMAL</b>		
Thermal Conductivity	W/mK	2.10
Coefficient of Thermal Expansion Volumetric	x 10 <sup>-6</sup> /K	586
Coefficient of Thermal Expansion Linear	x 10 <sup>-6</sup> /K	195
Operating Temperature Range	°C	- 50 to + 210
<b>ELECTRICAL</b>		
Dielectric Strength	kV/mm	> 18
Volume Resistivity	Ohm - cm	> 3.5 x 10 <sup>13</sup>

<sup>1</sup> Improved adhesion is achieved by post-curing a 120 - 150°C for 1 - 2 hours. All data without warranty and subject to change. All data without warranty and subject to change. Please contact us for further data and information.

All technical data and information are without warranty and believed to be reliable and accurate corresponding to the latest state of the art. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.