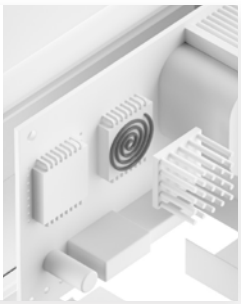
SILICONE ADHESIVE TAD-P-SI-1C

thermally conductive 1 part / RTV condensation cure

HALA

TAD-P-SI-1C is a condensation curing, non-corrosive highly thermally conductive 1 part silicone adhesive. It vulcanises at room temperature (RTV) to a strong but still elastic rubber and exhibits excellent primerless adhesion to most surfaces. Due to rapid acetone curing while being in contact with atmospheric moisture it is solvent free. The adhesive features good thermal conductivity and a thixotropic rheology that will prevent slumping or flow during the process. It allows for being operated at temperatures up to 220°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.



PROPERTIES

- Thermal conductivity: 2.3 W/mK
- High bonding properties
- Cures at room temperature (RTV condensation cure)
- Fast skinning
- Low linear shrinkage
- Non corrosive
- Thixotropic rheology preventing flow during the process
- High operating temperatures up to 220°C
- Extraordinary chemical resistance and longterm stability

AVAILABILITY

- 310 ml cartridge
- 20 kg in pails
- Bulk packaging options on request
- Optional with glass beads 0.2 mm (TAD-P-SI-1C-GF)

APPLICATION EXAMPLES

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

PROPERTY	UNIT	TAD-P-SI-1C
MATERIAL		Silicone
Colour		Grey
Physical state		Paste
Specific Gravity	g/cm³	2.11
Linear Shrinkage	%	0.5
Viscosity	Pas	350
Hardness	Shore A	67
Tensile Strength	MPa	3.9
Elongation at Break	%	103
Tack Free Time / Skin Formation (@ 23 °C and 65% RH)	min	4
Curing Time (3 mm @ 23 °C and 65% RH)	h	8
Full Cure	d	~7
Overlap Shear Strength (Al / Cu / St 304 / PC)	kg/cm²	7.15 / 3.6 / 2.98 / 4.62
Shelf Life (from Date of Manufacturing, unopened)	Months	12
Storage Temperature	°C	5 – 40
RoHS Conformity	2015 / 863 / EU	Yes
Thermal		
Thermal Conductivity	W/mK	2.3
Coefficient of Thermal Expansion Volumetric	x 10^{-6}/K	493
Coefficient of Thermal Expansion Linear	x 10^{-6}/K	164
Operating Temperature Range	°C	- 50 to + 220
Electrical		
Dielectric Strength	kV/mm	> 20
Volume Resistivity	Ohm - cm	> 1 x 10^{14}
Dielectric Constant	@ 1 MHz	4.9

Typical, non-binding values. Not intended for specification purposes. Subject to technical changes. Please contact us for further information.

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Technical Data Sheet

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.

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