### **KØLEPROFILER**

### **TERMISK LEDENDE MATERIALE**









# SILICONE ADHESIVE TAD-G-SI-1C

THERMALLY CONDUCTIVE 1 PART / ADDITION CURE

TAD-G-SI-1C is a liquid 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 good thermal conductivity. It allows for being operated at temperatures up to 260°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: 1.38 W/mK
- High bonding properties
- Heat addition cure
- Non corrosive
- High operating temperatures up to 260°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 board

PROPERTY	UNIT	TAD-G-SI-1C
MATERIAL		Silicone
Colour	••••	Grey
Specific Gravity	g/cm³	2.06
Linear Shrinkage	%	2.0
Viscosity	Pas	43
Hardness	Shore A	67
Tensile Strength	MPa	3.1
Elongation at Break	%	70
Curing Time (@ 100°C)	min	30
Shelf Life (from Date of Manufacturing, unopened, @ < 15°C)	Months	6
Flammability	UL 94	HB (1.5 mm)
RoHS Conformity	2015 / 863 / EU	Yes
THERMAL		
Thermal Conductivity	W/mK	1.38
Coefficient of Thermal Expansion Volumetric	x 10 <sup>-6</sup> /K	562
Coefficient of Thermal Expansion linear	x 10 <sup>-6</sup> /K	187
Operating Temperature Range	°C	- 50 to + 260
ELECTRICAL		
Dielectric Strength	kV/mm	22.5
Volume Resistivity	0hm - cm	7.7 x 10 <sup>15</sup>
Surface Resistivity	0hm - cm	1.3 x 10 <sup>15</sup>

All data without warranty and subject to change. Please contact us for further data and information.



# **SILICONE ADHESIVE TAD-0-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 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.



#### **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 board

PROPERTY	UNIT	TAD-0-SI-1C
MATERIAL		Silicone
Colour	•••••	Grey
Specific Gravity	g/cm³	2.18
Viscosity	Pas	140
Hardness	Shore A	56
Tensile Strength	MPa	2.20
Elongation at Break	%	105
Curing Time (3 mm @ 125°C / @ 100°C)	min	10 / 16
Shelf Life (from Date of Manufacturing, unopened, @ 10 – 30°C / @ < 10°C)	Months	2 / 12
Flammability	UL 94	HB (1.5 mm, V0 6.0 mm)
RoHS Conformity	2015 / 863 / EU	Yes
THERMAL		
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
ELECTRICAL		
Dielectric Strength	kV/mm	> 18
Volume Resistivity	0hm - cm	> 3.5 x 10 <sup>13</sup>

All data without warranty and subject to change. Please contact us for further data and information.



# SILICONE ADHESIVE TAD-P-SI-1C

THERMALLY CONDUCTIVE 1 PART / RTV CONDENSATION CURE

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 cartridges
- Bulk packaging options on request Processor cooling
- Optional with glass beads

#### **APPLICATION EXAMPLES**

- LED systems
- Memory chip assembly
- · CPU board

PROPERTY	UNIT	TAD-P-SI-1C
MATERIAL		Silicone
Colour	•••••	Grey
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 (@ 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
Max. Storage Temperature	°C	40
RoHS Conformity	2015 / 863 / EU	Yes
Thermal		
Thermal Conductivity	W/mK	2.3
Coefficient of Thermal Expansion Volumetric	x 10 <sup>-6</sup> /K	493
Coefficient of Thermal Expansion Linear	x 10 <sup>-6</sup> /K	164
Operating Temperature Range	°C	- 50 to + 220
Electrical		
Dielectric Strength	kV/mm	> 20
Volume Resistivity	0hm - cm	> 1 x 10 <sup>14</sup>
Dielectric Constant	@ 1 MHz	4.9
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