

# THERMALLY CONDUCTIVE ADHESIVE WITH FILLER WITH 1.3 W/mK

## SEMICOSIL® 871/1K TC

The WACKER SEMICOSIL® series show very good properties in reliability tests conducted under severe conditions. The products can fully meet your requirements for electronics and electrical application. The constantly increasing demand for heat dissipation requires adhesive, which are easy and cost effectively to handle.

### Product Description

SEMICOSIL® 871/1K TC is a relatively low viscous, addition-curing, one component product that cures at elevated temperature to a thermal conductive silicone rubber adhesive.

### Features of SEMICOSIL® 871/1K TC

- 1.3 W/mK thermal conductivity
- Long pot life
- Bonding different materials to one another
- No contact corrosion
- High temperature stability
- Storage stability

### Application

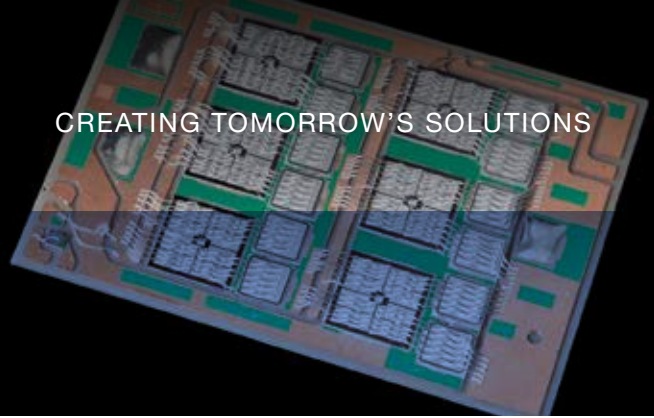
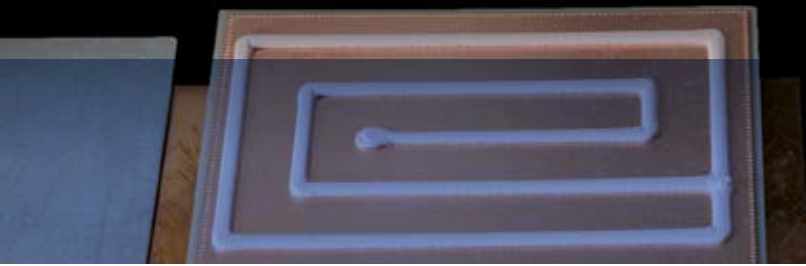
- Electronics
- Semiconductor
- Automotive
- Elements of the heat generation in a variety of industries

Product Information			
Property	Test Method	Unit	Value
<b>Product Data Uncured</b>			
Component			One component
Appearance			Light-gray
Viscosity at 25 °C, plate-plate-rotational viscometer	D = 0.5 1/sec	[mPa·s]	200,000
	D = 10 1/sec		60,000
Density at 25 °C		[g/cm <sup>3</sup> ]	2.45
Curing proposal		[°C/hours]	150 °C/1 hr
Pot life		[Hours]	>24 hrs
<b>Product Data Cured <sup>1)</sup></b>			
Appearance			Light-gray
Density at 23 °C, in water	DIN 53 479 A/ISO 2781	[g/cm <sup>3</sup> ]	2.45
Hardness Shore-A	DIN 53 505/ISO 868	°	65
Thermal conductivity	QTM-500, 6 mm	[W/mK]	1.3
Elongation at break		[%]	150
Tensile strength		[N/mm <sup>2</sup> ]	2.0

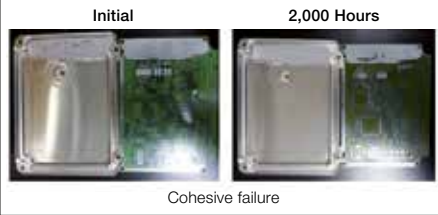
1) Values from pressed foil (165 °C/15 min/200 bar)

\* These figures are only intended as a guide and should not be used in preparing specifications.

Reliability			
Property	Conditions	Test Cycle	Result
<b>Uncured sample storage stability test</b>	Viscosity @ RT	1, 2, 3 months	
	Viscosity @ in the refrigerator (0 °C ~ 10 °C)	3, 6, 9, 12 months	
<b>Cured sample stability test</b>	Physical properties @ 150 °C (hardness/weight loss) (tensile/elongation at break)	2,000 hours	<b>Stable and all passed</b>
	Physical properties @ 150 °C (hardness/weight loss)		
	Physical properties @ 200 °C (hardness/weight loss)		
<b>Adhesion test</b>	Lap shear test @ 105 °C	2,000 hours	
	Module adhesion test @ 105 °C		



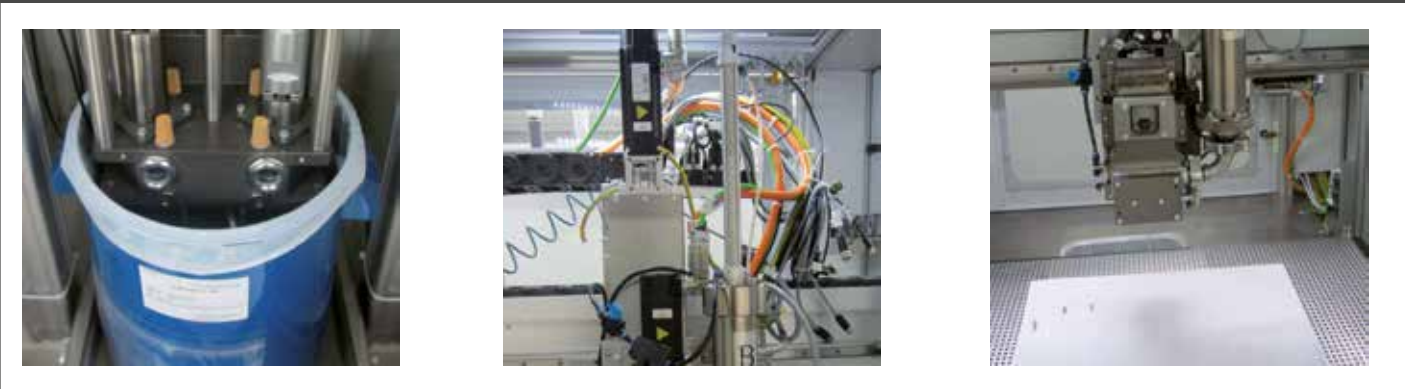
**Adhesion Reliability on Module (at 105 °C)**



Curing	
Temperature	Curing time, Thickness 1cm
150 °C	1 hr
120 °C	2 hrs



**SEMICOSIL® 871/1K TC is Easy to Process from Hobcock and Cartridges with a Continuously High Dosing Speed**



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