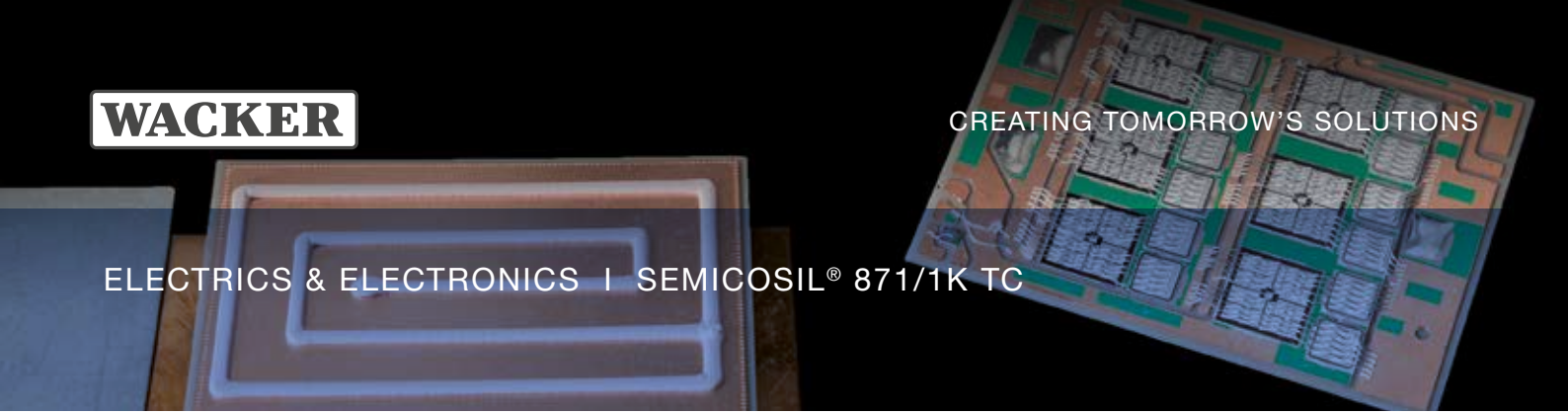


WACKER

CREATING TOMORROW'S SOLUTIONS

ELECTRICS & ELECTRONICS I SEMICOSIL® 871/1K TC

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

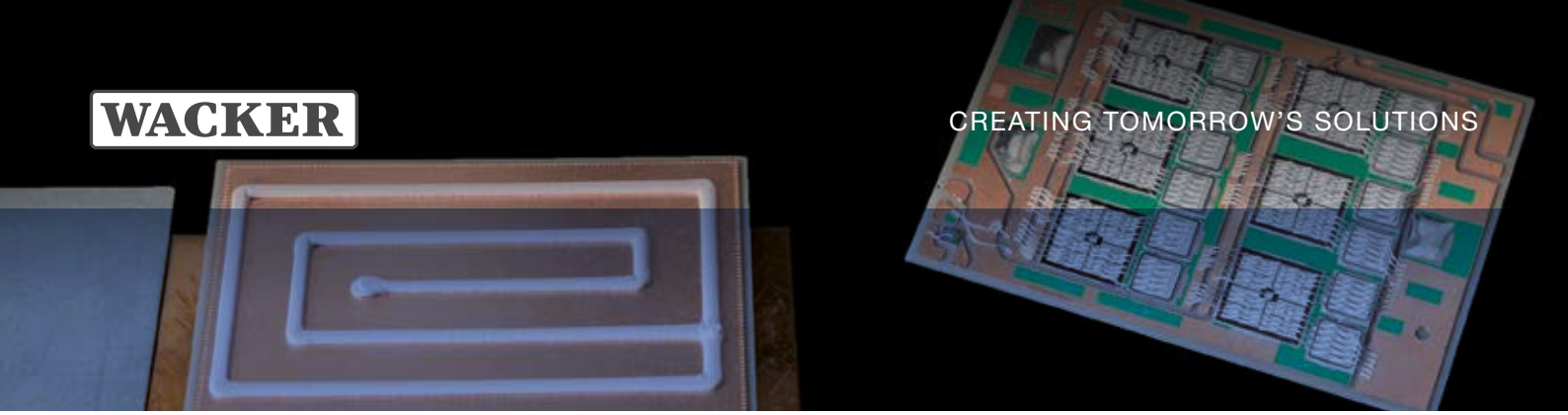
Product Information

Property	Test Method		Unit	Value
Product Data Uncured				
Component				One component
Appearance				Light-gray
Viscosity at 25 °C, plate-plate-rotational viscometer	ISO 3219	D = 0.5 1/sec	[mPa·s]	200,000
		D = 10 1/sec		60,000
Density at 25 °C			[g/cm³]	2.45
Curing proposal			[°C/hours]	150 °C/1 hr
Pot life			[Hours]	>24 hrs
Product Data Cured [1]				
Appearance				Light-gray
Density at 23 °C, in water	DIN 53 479 A / ISO 2781		[g/cm³]	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/mm²]	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
Uncured sample storage stability test	Viscosity @ RT	1, 2, 3 months	**Stable and all passed**
	Viscosity @ in the refrigerator (0 °C ~ 10 °C)	3, 6, 9, 12 months	
Cured sample stability test	Physical properties @ 150 °C (hardness/weight loss) (tensile/elongation at break)	2,000 hours	
	Physical properties @ 150 °C (hardness/weight loss)		
	Physical properties @ 200 °C (hardness/weight loss)		
Adhesion test	Lap shear test @ 105 °C	2,000 hours	
	Module adhesion test @ 105 °C		



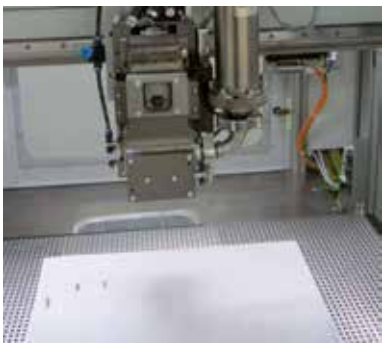
Adhesion Reliability on Module (at 105 °C)

Cohesive failure

Curing

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

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



SEMICOSIL®

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