SEMICOSIL® 986/1K

SEMICOSIL®

1-part heat-curing silicone rubber

SEMICOSIL® 986/1K is a non-slump, thermally curable, addition curing one-part silicone rubber.

Properties

- ready-to-use, one-part system
- thixotropic
- translucent
- medium hardness
- high flexibility (low-stress-adhesive)
- primerless adhesion to many substrates
- rapid heat cure
- ultraviolett fluorescing

Technical data

Properties Uncured

Property	Condition	Value	Method
Color	-	translucent	-
Density	23 °C	1.07 g/cm^3	-
Viscosity, dynamic (D = 0.5 s^{-1})	25 °C	300000 mPa·s	ISO 3219
Viscosity, dynamic (D = 25 s^{-1})	25 °C	35000 mPa·s	ISO 3219

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

Properties Cured

Cured for 30 min at 150 °C in a circulating air oven.

Property	Condition	Value	Method
Color	-	translucent	-
Density	23 °C	1.07 g/cm^3	ISO 2781
Elongation at break	-	200 %	ISO 37
Hardness Shore A	-	51	ISO 868
Modulus at 100 % elongation	-	3 N/mm^2	ISO 37
Tear strength	-	8 N/mm	ASTM D 624 B
Tensile strength	-	5 N/mm^2	ISO 37

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Applications

- Power Control Unit (PCU)
- Bonding, Fixing & Sealing
- Automotive Electronics
- Power Electronics
- Electrics & Electronics

Application details

- general purpose adhesive for the electronics industry
- FIPG applications

Processing

Surface preparation
All surfaces must be clean and free of contaminants that will inhibit the cure of SEMICOSIL® 986/1K. Examples of inhibiting contaminants are sulfur containing materials, plasticizers, urethanes, amine containing materials and organometallic compounds – especially organotin compounds. If a substrate's ability to inhibit cure is unknown, a small scale test should be run to determine compatibility.

Dispensing
Because of the thixotropy (shear thinning effect) SEMICOSIL® 986/1K can be dispensed easily with all dispensing equipments. Since silicones dissolve notable amounts of air, an in-line degassing is recommended.

Curing
SEMICOSIL® 986/1K works best when cured at 115 °C or more depending on the size and heat sink properties of the components.

Temperature Curing time, thickness 10 mm
100°C 6 h
130°C 30 min
150 °C 10 min

Adhesion
SEMICOSIL® 986/1K shows good primerless adhesion to many substrates. We recommend running preliminary tests to optimize conditions for the particular application.

Packaging and storage

Storage

The 'Best use before end' date of each batch is shown on the product label.
SEMICOSIL® 986/1K should be stored between +5 and +25°C in its tightly closed containers.
Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

According to the latest findings, the addition-curing silicone rubber SEMICOSIL® 986/1K contains neither toxic or corrosive substances which would require special handling precautions.

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site http://www.wacker.com.

QR Code SEMICOSIL® 986/1K

For technical, quality or product safety questions, please contact:

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