

EPOXONIC® 281

**Thermal conductive, flame-resistant
potting compound for Microelectronics
and Electrical Engineering**

EPOXONIC® 281 is a solvent-free, mineral filled 2-part potting compound based on epoxy resin.

Main characteristics:

Long-term heat resistance to 150 °C
Thermal shock resistance
Moderate curing temperature
Outstanding electrical insulation properties
High thermal conductivity
Low thermal expansion
Chemical resistance
Flame-resistance
Low viscosity

Application:

EPOXONIC® 281 is especially suited for potting of temperature sensitive devices with high requirements for electrical insulation and flame retardancy.

Properties:

Specific values measured by standard test specimen at 23 °C, cured 4 h / 80 °C.

Operating temperature ¹⁾	-40 °C to +150 °C	
Colour	green	
Shore hardness	87 Shore D	DIN EN ISO 868
Density	1.7 g/cm ³	DIN EN ISO 1183-1
Coefficient of linear thermal expansion CTE	35 – 45 x 10 ⁻⁶ /K (50 – 60 °C)	DIN EN ISO 11359-2

1) Depending on the application, other temperature limits may be reasonable

Properties:

Glass transition temperature	60 – 70 °C	DIN EN ISO 11357-2
Thermal conductivity	1.1 W/mK	DIN EN ISO 8894-1
Flame-resistance	V0 (not listed)	UL 94
Tensile strength	35 MPa	DIN EN ISO 527
Elongation at break	0.5 %	DIN EN ISO 527
E-modulus	8,600 MPa	DIN EN ISO 527

Processing:

Mix ratio	Part A : Part B = 100 : 7.5 parts by weight	
Mixing temperature	20 – 30 °C	
Viscosity cone/plate viscometer	25 °C	29,000 – 32,000 mPas (Part A)
	25 °C	10 – 30 mPas (Part B)
	25 °C	3,000 – 5,000 mPas (Mixture A + B)
Pot life	25 °C	approx. 30 – 45 min (time to double viscosity)
Method of application	e.g. dispenser	
Cure schedule	e.g. 4 h / 80 °C Optimum cure schedules have to be determined by the specific application.	

Storage:

The shelf life of EPOXONIC® 281 Part A and Part B is 12 months at temperatures < 25 °C when stored in tightly closed, original containers.

Part A has to be stirred very well before use. Partly emptied containers should be tightly closed immediately after use.

Packaging:

EPOXONIC® 281 Part A is delivered in 1 l metal cans containing 1 kg material and EPOXONIC® 281 Part B is delivered in 250 ml cans with a pour spout containing 250 g material. Other packaging options are available upon request.

Disclaimer:

All information herein is based on the present state of knowledge and believed to be reliable. Any suggestions or recommendations are made without liability on our part since we shall have no control over the use of our product. Buyers and users should make their own assessment of this product under their own conditions and for their own requirements.

Health and Safety:

Recommended industrial hygiene procedures should always be followed when handling this product. Please refer to the corresponding Material Safety Data Sheet for details.

Quality Assurance:

If required EPOXONIC® 281 will be supplied with a Certificate of Analysis.