EPOXONIC®
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EPOXONIC® 283

Impact resistant potting compound for Microelectronics and Electrical Engineering

EPOXONIC® 283 is a solvent-free, mineral filled 2-part potting compound based on epoxy resin.

Main characteristics:

- Thermal shock resistance
- Chemical resistance
- Low viscosity
- Excellent impact resistance
- Moderate curing temperature
- Excellent electrical insulation

Application:

EPOXONIC® 283 is especially suited for potting of temperature sensitive electronic devices with high demands on mechanical properties (e.g. Automotive Electronics) as well as high-voltage devices (e.g. high-voltage plugs).

Properties:

Specific values measured by standard test specimen at 23 °C, cured 2 h / 70 °C.

Operating temperature [1]	-40 °C to +100 °C	
Colour	black	
Shore hardness	92 Shore D	DIN EN ISO 868
Density	1.7 g/cm³	DIN EN ISO 1183-1
Glass transition temperature	95 – 105 °C	ISO 11359-2
Coefficient of linear thermal expansion CTE	40 – 50 x 10^{-6}/K (20 – 80 °C)	ISO 11359-2
Tensile strength	70 MPa	DIN EN ISO 527
E-modulus	8,440 MPa	DIN EN ISO 527
Elongation at break	1.2 %	DIN EN ISO 527
Dielectric strength 60 °C	40 kV/mm	DIN EN 60243-2

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

Processing:

Mix ratio		Part A : Part B = 100 : 9.5 parts by weight
Mixing temperature		20 – 30 °C
Viscosity cone/plate viscometer		
	25 °C	40,000 – 50,000 mPas (Part A)
	25 °C	10 – 30 mPas (Part B)
	25 °C	2,000 – 3,000 mPas (Mixture A + B)
Pot life	25 °C	approx. 30 min (time to double viscosity)
Method of application		e.g. dispenser
Cure schedule		e.g. 2 h / 70 °C Optimum curing schedules have to be determined by the specific application.

Storage:

The shelf life of EPOXONIC® 283 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. EPOXONIC® 283 Part A may crystallize after longer periods of time resp. storage at lower temperatures or high temperature changes. If crystallization occurs, this can be removed by heating up to 50 – 60 °C and stirring.

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.

Packaging:

EPOXONIC® 283 Part A is delivered in 30 l hobbocks containing 25 kg material. The Part B is delivered in 10 l cans containing 10 kg material. Other packaging options are available upon request.

Quality Assurance:

If required EPOXONIC® 283 will be supplied with a Certificate of Analysis.

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.