

EPOXONIC® 352

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

EPOXONIC® 352 is a solvent-free, mineral filled 2-part potting compound based on epoxy resin.

Main characteristics:

Heat resistance to 150 °C
Thermal shock resistance
Chemical resistance
Outstanding electrical insulation properties
High thermal conductivity
Low thermal expansion
Flame-resistance

Application:

EPOXONIC® 352 is especially suited for potting of electrical devices with high requirements for thermal shock resistance and chemical resistance.

Properties:

Specific values measured by standard test specimen at 23 °C, cured 1 h / 80 °C + 1 h / 130 °C.

Operating temperature	-40 °C to +150 °C	
Colour	black	
Shore hardness	90 Shore D	DIN EN ISO 868
Density (24 °C)	1.61 g/cm ³	DIN EN ISO 1183-1
Coefficient of linear thermal expansion CTE (TMA)	40 – 50 x 10 ⁻⁶ /K (T < T _g) 110 – 130 x 10 ⁻⁶ /K (T>T _g)	ISO 11359-2
Glass transition temperature (DSC)	100 °C – 110 °C	DIN 53765
Water absorption	< 0.1 % at 23 °C / 24 h	DIN EN ISO 62
Thermal conductivity	0.8 – 1.0 W/mK	DIN EN ISO 8894-1

Additional Properties:

Tensile strength	65 MPa	DIN EN ISO 527
Flexural strength	80 MPa	DIN EN ISO 178
Flexural modulus	8000 MPa	DIN EN ISO 178
Outer fibre strain at break	1.1 %	DIN EN ISO 178
Flame-resistance	V0 (not listed)	UL 94
Dielectric strength	> 20 kV/mm	DIN EN 60243-1

Processing:

Density at 20 °C		Part A : 1.61 g/cm ³ Part B : 0.96 g/cm ³
Mix ratio		Part A : Part B = 100 : 11,1 parts by weight 100 : 18.6 parts by volume
Mixing temperature		20 – 60 °C (depends on mixing equipment)
Viscosity cone/plate viscometer		
	25 °C	10,000 – 15,000 mPas (Part A)
	25 °C	200 – 300 mPas (Part B)
	25 °C	5,000 – 7,000 mPas (Mixture A + B)
	60 °C	500 – 800 mPas (Mixture A + B)
Pot life	25 °C	30 – 45 min (time to double viscosity, depends on sample size)
	60 °C	17 – 23 min
Method of application		e.g. dispenser
Cure schedule		e.g. 1 h / 80 °C + 1 h / 130 °C Optimum cure schedules have to be determined by the specific application.

Storage:

The shelf life of EPOXONIC® 352 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. Part B can crystallize. In this case the whole container has to be completely heated and the content liquefied and homogenized. Partly emptied containers should be tightly closed immediately after use.

Packaging:

EPOXONIC® 352 Part A is delivered in 20 l metal pails containing 20 kg material. The Part B is delivered in 10 l metal cans with a pour spout containing 9 kg material. Other packaging options are available upon request.

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® 352 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.