

## Flexible Heat-conductive Potting Compound for Electronics

**EPOXONIC® 17** is a filled two-component potting compound based on epoxy resin. It features:

- flexibility
- high thermal conductivity
- good electrical insulation properties
- does not cause electrical corrosion

### Applications

**EPOXONIC® 17** is particularly suited for electronic applications in which the components must react to, or are influenced quickly by, temperature fluctuations.

Examples: power modules, temperature sensors, inductive components

### Properties

• Color		gray	
• Density (cured material)		1.66 g/cm <sup>3</sup>	
• Thermal conductivity (25°C)		1.05 ± 0.05 W/mK	
• Coefficient of linear thermal expansion			
α1 (TMA; 40 - 65 °C )		84 x 10 <sup>-6</sup> /K	
α2 (TMA; 120 - 200 °C )		109 x 10 <sup>-6</sup> /K	
• Glass transition temperature (T <sub>g</sub> )		82 °C	
• E-Corrosion		A1	DIN 53489
• Dielectric constant (ε/50 Hz)	25°C	4.6	DIN 53483
	40°C	5.1	
	60°C	5.5	
	100°C	7.0	
• Volume resistivity	25°C	2.4 x 10 <sup>14</sup> Ω.cm	DIN 53482
	40°C	1.3 x 10 <sup>13</sup> Ω.cm	
	60°C	0.5 x 10 <sup>12</sup> Ω.cm	
	100°C	0.8 x 10 <sup>10</sup> Ω.cm	
• Dissipation factor (tg δ/50 Hz)	25°C	5.9 x 10 <sup>-2</sup> Ω.cm	DIN 53483
	40°C	5.5 x 10 <sup>-2</sup> Ω.cm	
	60°C	7.0 x 10 <sup>-2</sup> Ω.cm	
	100°C	1.1 x 10 <sup>-2</sup> Ω.cm	
• Dielectric strength (3 mm sheet, 25 °C)		16 kV/mm	DIN 53481
• Moisture absorption 40 °C / 24 hrs		0.12 %	DIN 53495
• Torsion module G:	E-Modulus	6210 N/mm <sup>2</sup>	

• Flexural modulus	793 N/mm <sup>2</sup>	DIN 53452
Flexural strength	25 N/mm <sup>2</sup>	
Elongation	5,7 %	
• E-Modulus	239 N/mm <sup>2</sup>	EN ISO 527
Tensile strength	15 N/mm <sup>2</sup>	
Elongation	16 %	

## Processing

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• Mix ratio A : B	100 : 215 pbw
• Mix temperature	60°C
• Pot life (60°C)	approx. 150 min. (time for viscosity to double)
• Viscosity	Part A: approx. 30,000 mPas (25°C) Part B: approx. 65,000 mPas (60°C) Mixture: approx. 18,000 mPas (60°C) approx. 6,000 mPa.s (80°C)
• Cure schedule	3 hrs @ 110°C or 6 hrs @ 100°C

## Shelf Life

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The shelf life of the components is 6 months when stored in tightly closed containers at room temperature. Minimal filler settling allows easy mixing of the individual components before use.

## Quality Assurance

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Upon agreement **EPOXONIC® 17** will be supplied with a Quality Certificate.

## Packaging

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**EPOXONIC® 17** Part A is supplied in a 5-liter metal pail containing 6.0 kgs material; the Part B in an 11-liter metal pail containing 12.9 kgs material. Other packaging options are available upon request.

## Caution

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As with all epoxy materials, this product may cause skin irritation. Recommended industrial hygiene procedures should always be followed when handling **EPOXONIC® 17**. Advice of Material Safety Data Sheet should be followed.

## Disclaimer

All information contained herein is based on the present state of knowledge. Any conclusions and recommendations are made without liability on our part. Buyers and users should make their own assessment of this product under their own conditions and for their own requirements.