

Thermally conductive products

Thermicast® TA 25001

Description:

Thermicast® TA 25001 is a flame-retardant, two-component epoxy resin system with high thermal conductivity and low viscosity. Thermicast® TA 25001 has been specially developed for the potting and protection of electronic assemblies where efficient heat dissipation, electrical insulation and high long-term reliability are required.

Thermicast® TA 25001 does not contain any abrasive aluminium fillers and thus protects mixing, dosing and dispensing systems. At the same time, Thermicast® TA 25001 offers excellent thermal conductivity, a low exothermic reaction during curing and high moisture resistance.

Properties:

Thermicast® TA 25001 has the following properties: two-component epoxy resin system, flame retardant, high thermal conductivity, low viscosity, good electrical insulation properties, low exothermic reaction during curing, free of abrasive aluminum fillers, good water resistance and is suitable for manual and automatic dosing systems

Applications:

Thermicast® TA 25001 is particularly suitable for: Encapsulation of electronic assemblies, power electronics, power supplies, transformers, sensors, LED modules, control units, DC/DC converters, telecommunications electronics and industrial electronics

Color:

black

Delivery forms:

Thermicast® TA 25001 can be supplied in syringes, tubes, cartridges, cups and buckets.

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Processing: Before processing, the resin and hardener must be carefully homogenized. Any sedimentation present must be completely incorporated. During the mixing process, the air ingress should be kept as low as possible. For series applications, the use of automatic dosing and mixing systems is recommended.

Note: The hardener has a corrosive effect. During processing, suitable protective gloves, safety goggles and suitable protective clothing must be worn. Avoid skin and eye contact. Remove dirt immediately with water. Before curing, equipment and tools can be cleaned with suitable cleaning agents.

Storage conditions: Thermicast® TA 25001 should be stored at room temperature in dry rooms. Shelf life for cartridge system approx. 12 months.

Processing characteristics

Feature	Unit	Value
Mixing ratio (weight)	-	12,8 : 1
Mixing ratio (volume)	-	5,53 : 1
Doubling time of viscosity	minutes	80
Pot life (300 g)	Hours	2
Gelling time (300 g)	Hours	7
Gel time (30 g)	Hours	10

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Technical characteristics of the cured system:

Feature	Unit	Value
Density	g/cm ³	2,195
Tensile strength	MPa	Approx. 62
Thermal conductivity	W/m·K	1,15
Electrical dielectric strength	kV/mm	10
Relative Permittivity (50 Hz)	–	6
Dissipation factor (50 Hz)	-	0,06
Volume resistance	Ω·cm	1 × 10 ¹⁵
Shore Hardness	Sore D	90
Heat deflection	°C	60
Linear coefficient of thermal expansion	1/K	30 × 10 ⁻⁶

Curing:

Temperature	Curing in hours
25°C	24
60 °C	4
100°C	1

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Trademark information: Thermicast® is a registered trademark of Dr Dietrich Müller GmbH, Germany.

Please note:

The information in this technical data sheet is based on our current knowledge and experience. Due to the wide range of possible influences during application, it does not exempt the processor and user from carrying out their own tests and trials. A legally binding guarantee of certain properties or suitability for a specific application cannot be derived from our information. Depending on the individual case, we recommend consulting us. The recipient of our products is responsible for observing any industrial property rights and existing laws.
