

TECHNOMELT TC 50 (e)

(Electronics) March 2016

PRODUCT DESCRIPTION

TECHNOMELT TC 50 (e) provides the following product characteristics:

Technology	Polyamide
Appearance	Black
Components	One-component
Product Benefits	<ul style="list-style-type: none">• Maintains low viscosity compatible with low pressure molding• Compatible with traditional LPM equipment• Thermally conductive polyamide resin
Operating temperature	-40 to 140
Application	Thermoplastic, Encapsulant
Cure	Physical setting
Typical Applications	Hotmelt and Circuit board protection

TECHNOMELT TC 50 (e) high performance, filled thermoplastic polyamide is formulated for use as a protective encapsulant for heat generating devices requiring thermal management. This material can be handled at low processing pressure, allowing encapsulation of fragile components without damage.

TYPICAL PROCESS DATA

Molding Temperature. °C 210 to 240

TYPICAL MATERIAL PROPERTIES

Physical Properties

Viscosity, Brookfield - RVF @ 10 °C, mPa·s (cP) Spindle 27, speed 10 rpm	8,500
Elongation, %	115
Density, g/cm ³	1.73
Hardness, Shore D	60
Softening Point, °C	190
Tensile Modulus, MPa	60
Thermal Conductivity, W/mK	0.65

Electrical Performance

Volume Resistivity @ 25°C, ohm-cm	1×10 ¹³
Dielectric Strength, kV/mm	19.6

TYPICAL MATERIAL PERFORMANCE

Performance

Yield Strength, MPa 4.3

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants.

Application:

Application Temperature: 210 to 240°C

Application System: Extrusion and injection molding process

When bonding to a substrate with high thermal conductivity the use of a specific application temperature is required for good wetting. Do not heat the product above the specified application temperature range.

When the product is not in use do not apply heat, this will degrade the quality of the product and in extreme cases cause carbonization. TECHNOMELT TC 50 (e) may absorb moisture from the air. This will not be apparent in the solid form, but may cause bubbles on heating and could affect the bond quality. It is important, therefore, that containers are kept closed and sealed when not in use.

Cleaning:

Carbonized and set (non thermoplastic) material must be removed mechanically. Removal of the thermoplastic material from the hot apparatus can be achieved with solvent free cleaning system, such as Technomelt 0062 (see separate technical information).

Storage:

Store in a cool, dry location, with the container tightly closed. When not in used, this product will have a shelf life of at least 12 months.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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