TECHNOMELT

Technical Data Sheet

TECHNOMELT® PA 6481 Black

February 2022

PRODUCT DESCRIPTION

TECHNOMELT® PA 6481 Black provides the following product characteristics:

Technology	Polyamide
Chemical Type	Hot Melt Adhesive
Cure	Physical Setting
Appearance	Black
Components	One-component
Viscosity	Low
Application	Molding
Molding Temperature	200 to 240ºC (390 to 460)ºF
Operating Temperature Range	-40 to 130ºC (-40 to 270)ºF (Depends on application, without mechanical stress)
Specific Benefits	• Easy Moldability • Designed for molding compound applications • Excellent moisture resistance • Improved UV stability

TECHNOMELT® PA 6481 Black is a one-component industrial grade Polyamide Hot Melt Adhesive designed to meet low pressure molding process requirements. This product can be processed at low processing pressure due to its low viscosity, allowing encapsulation of fragile components without damage.

Once applied TECHNOMELT® PA 6481 Black solidifies to form a barrier between electronics and the environment. It is a resilient encapsulant with good heat stability and moisture resistance. The product shows an improved UV stability and is especially suitable for outdoor applications. Typical applications include potting electronics modules, molding strain relief into wiring and encapsulation of sensors. It is a versatile adhesive for many substrates.

UL 94

TECHNOMELT® PA 6481 Black has been tested to UL 94 V2. Contact Henkel for details.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 20ºC, g/cm³ ISO 1183-1	0.98
Melting Viscosity- RVT, mPa·s (cP) ASTM D-3236: Spindle 27:	
@ 210°C	7,300
@ 220°C	5,400
@ 225°C	4,250
@ 230°C	4,100
Softening Point, °C ASTM E28	170 to 180

TYPICAL PERFORMANCE OF CURED MATERIAL

Physical Properties

Hardness Shore, Durometer A DIN EN ISO 868/15s		93
Elongation, % ISO 527 Specimen no.5 Cross-head-speed: 50 mm/ min		550
Low Temperature Flexibility, °C ASTM D3111		-30
Temperature Creep Resistance, °C Henkel Method 11		155
Glass Transition Temperature (Tg), °C DSC Second run		-30
Tensile at break	N/mm² (psi)	11 (1,600)
Yield Strength ISO 527 Speciman No. 5 Cross-head-speed: 50mm/min	N/mm² (psi)	7 (1,015)

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or their strong oxidizing materials.

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

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DIRECTIONS FOR USE

1. Use gloves to minimize skin contact. DO NOT use solvents for cleaning hands.
2. The surfaces of the substrate must be dry and free from oil, grease, and dust.
3. Material has been formulated to provide the best possible moldability and as wide a molding latitude as possible.
4. Much of the final molding parameters will be determined by the mold design.
5. Molding temperature will vary from situation to situation, range shown on this data sheet is a starting range for process development.
6. When potting to a substrate with high thermal conductivity the use of a specific application temperature is required for good wetting.
7. Do not heat the product above the specified application temperature range.
8. 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 or charring.
9. Carbonized material must be removed mechanically.
10. To internally clean the system add TECHNOMELT® 62 to reservoir and continue to purge material until it comes out clean, like fresh TECHNOMELT® 62. Check for availability in your region.
11. For cold cleaning of surface soiling on application equipment, conveyor belts or other machine parts TECHNOMELT® CLEANER MELT-O-CLEAN can be applied. It is based on natural citrus extract and facilitates manual cleaning even in case if pronounced charring. Before using TECHNOMELT® CLEANER MELT-O-CLEAN, its suitability for lacquered and synthetic coated surfaces should be tested.

Storage:
Store product in the unopened container in a cool dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: Up to 28° C. Storage above 35° C can adversely affect the ability to handle and dispense the material.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Product Specifications
The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate
Please contact Henkel representative for related approval or certificate of this product.

Data Ranges
The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb/F
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
N/mm² = MPa
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

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