Technical Data Sheet

TECHNOMELT® PA 657 NV BLACK

February 2026

PRODUCT DESCRIPTION

TECHNOMELT® PA 657 NV 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	180 to 230°C (356 to 446°F)
Operating temperature range	-40 to 100°C (-40 to 212°F) Depends on the application, without mechanical stress
Specific benefits	• Easy moldability • Designed for molding compound applications • Cold flexibility

TECHNOMELT® PA 657 NV BLACK is a one-component polyamide hot melt adhesive designed to meet low pressure molding process requirements. This product can be processed at low molding pressure due to its low viscosity, allowing encapsulation of fragile components without damage.

Once applied TECHNOMELT® PA 657 NV BLACK solidifies to form a barrier between electronics and the environment. It is a resilient encapsulant with good heat stability and moisture resistance. Typical applications include potting electronics modules, molding strain relief into wiring and encapsulation of sensors. It is a versatile adhesive for many substrates such as FR4, metals and many plastics including ABS, PC.

TYPICAL PROPERTIES

Specific gravity @ 20°C, g/cm^3	
ISO 1183-1	0.98
Softening point, °C	
ASTM E28 (in glycerin)	150 to 165
Melt viscosity - RVT, mPa·s (cP)	
ASTM D 3236 (spindle 27)	
@180ºC	8,600
@190ºC	6,500
@200ºC	4,900
@210ºC	3,000 to 4,500

TYPICAL PERFORMANCE

Physical

Shore hardness, Durometer A		77
DIN EN ISO 868/15s		
Elongation, %		350
ISO 527, Specimen no.5		
Cross-head-speed: 50mm/min		
Low temperature flexibility, °C		-50
ASTM D3111		
Temperature creep resistance, °C		125
Henkel method MH 11		
Tg glass transition temperature, °C		-45
DSC Second run		
Water absorption, (1 day, 23°C), %		1.4

Strength

Tensile at break	N/mm^2	2.7
ISO 527, Specimen no.5	(psi)	(390)
Yield strength	N/mm^2	2.6
ISO 527, Specimen no.5	(psi)	(375)
Cross-head-speed: 50mm/min		
E-modulus	N/mm^2	25
ASTM D638	(psi)	(3,625)

Electrical properties

Dielectric constant / Dissipation factor Open ended coaxial probe:	
@ 1 MHz	4.1/0.105
@ 1 GHz	2.8/0.038
@ 1.8 GHz	2.7/0.029
Dielectric strength, kV/mm	15
IEC 60243	
Volume resistivity, ohm-cm	0.6×10^{12}
DIN IEC 60093	
Comparative tracking index @ 300 mm, volts	600
IEC 60112	

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 other strong oxidizing materials.

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

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. Removal of the thermoplastic material from the hot apparatus can be achieved with solvent free cleaning system, such as TECHNOMELT® PA 62 (see separate technical information). Check for availability in your region.

Storage

Store product in an unopened container in a 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 will absorb moisture from the air. Material from opened containers should be transferred immediately into airtight containers. Material should be stored in sealed containers in a cool location to maximize shelf life.

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 specification
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
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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