PLEXIGLAS® Hi-Gloss NTA-3

PMMA — Röhm GmbH

Product Texts

Productprofil:

PLEXIGLAS® Hi-Gloss NTA-3 is an impact-modified compound with an increased heat deflection temperature based on polymethylmethacrylate (PMMA).

Besides the well-known properties of PLEXIGLAS® molding compound, such as

- good flow
- high mar resistance
- good weather resistance
- good polishability,

PLEXIGLAS® Hi-Gloss NTA-3 offers the added benefit of

- increased heat deflection temperature under load.

Application:

PLEXIGLAS® Hi-Gloss NTA-3 is particularly suitable for injection molding technical components. Owing to its superior brilliance, high-gloss (Class A) surfaces can be obtained in opaque colors.

Example:

automotive body parts: window channels, pillar panels

Processing:

PLEXIGLAS® Hi-Gloss NTA-3 can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Hi-Gloss NTA-3 compounds are supplied as pellets of uniform size, packaged in 25kg polyethylene bags or in 500kg boxes with PE lining; other packaging on request.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**2**	cm³/10min	ISO 1133
Temperature	**230**	°C	-
Load	**3.8**	kg	-
[C] Density of melt	**1100**	kg/m³	-
[C] Ejection temperature	**95**	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2900**	MPa	ISO 527
[C] Stress at break	**60**	MPa	ISO 527
[C] Strain at break	**2.6**	%	ISO 527
[C] Tensile creep modulus, 1h	**2700**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**1700**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**16**	kJ/m²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**125**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**106**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**106**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**116**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**75**	E-6/K	ISO 11359-1/-2
[C] Burning rate, FMVSS, Thickness 1 mm	**93.4**	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ISO Data			
[C] Luminous transmittance	**0**	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**3**	%	Sim. to ISO 62
[C] Density	**1190**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**240**	°C	ISO 294
Injection Molding, mold temperature	**76**	°C	ISO 294
Injection Molding, injection velocity	**195**	mm/s	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**100**	°C	-
Pre-drying - Time	**2 - 3**	h	-
Melt temperature	**220 - 250**	°C	-
Mold temperature	**50 - 85**	°C	-

Characteristics

Processing
Injection Molding

Features
High Gloss

Delivery form
Pellets

Applications
Automotive

Special Characteristics
High impact or impact modified, Light stabilized or stable to light, U.V. stabilized or stable to weather, Opaque

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding
PREPROCESSING
Predrying temperature: max. 100 °C
Predrying time in a desiccant-type drier: 2 - 3 h

PROCESSING
Melt temperature: 220 - 250°C
Mold temperature:50 - 85°C