

Product Texts

Productprofil:

PLEXIGLAS® Hi-Gloss NTA-1 is an impact-modified compound with a high heat deflection temperature based on polymethyl methacrylate (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-1 offers the added benefits of

- increased impact strength
- good heat deflection temperature under load.

Application:

PLEXIGLAS® Hi-Gloss NTA-1 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:

add-on automotive body parts, mirror housings, pillar panels, spoilers

Processing:

PLEXIGLAS® Hi-Gloss NTA-1 can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Hi-Gloss NTA-1 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	3	cm ³ /10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-
^[C] Density of melt	1090	kg/m ³	-
^[C] Ejection temperature	90	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2700	MPa	ISO 527
^[C] Yield stress	68	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	10	%	ISO 527
^[C] Tensile creep modulus, 1h	2500	MPa	ISO 899-1

PLEXIGLAS® Hi-Gloss NTA-1

PMMA-I

Röhm GmbH

[C] Tensile creep modulus, 1000h	1250	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	33	kJ/m ²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	120	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	102	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	103	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	110	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	78.5	E-6/K	ISO 11359-1/-2
[C] Burning rate, FMVSS, Thickness 1 mm	100	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	1180	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	235	°C	ISO 294
Injection Molding, mold temperature	70	°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