

ACRYLITE® Hi-Gloss NTA-5 black for automotive body components



Product

ACRYLITE® Hi-Gloss NTA-5 black is an amorphous thermoplastic molding compound, based on impact-modified polymethyl methacrylate (PMMA).

Properties

ACRYLITE® molding compounds have the following typical properties:

- high weather resistance
- brilliant appearance
- 100% recyclable

ACRYLITE® Hi-Gloss NTA-5 black is characterized by the following additional properties:

- highest breaking strength and impact strength
- increased heat resistance
- improved resistance to stress cracking
- balanced property profile

Application and approvals

ACRYLITE® Hi-Gloss NTA-5 black is particularly suitable for injection molding of technical components where high impact resistance is needed. Due to its superior brilliance, high-gloss Class A surfaces can be obtained without painting.

Application areas are:

Add-on automotive body parts, pillar-trims, mirror housings, trim parts at front – and rear end, etc.

Processing

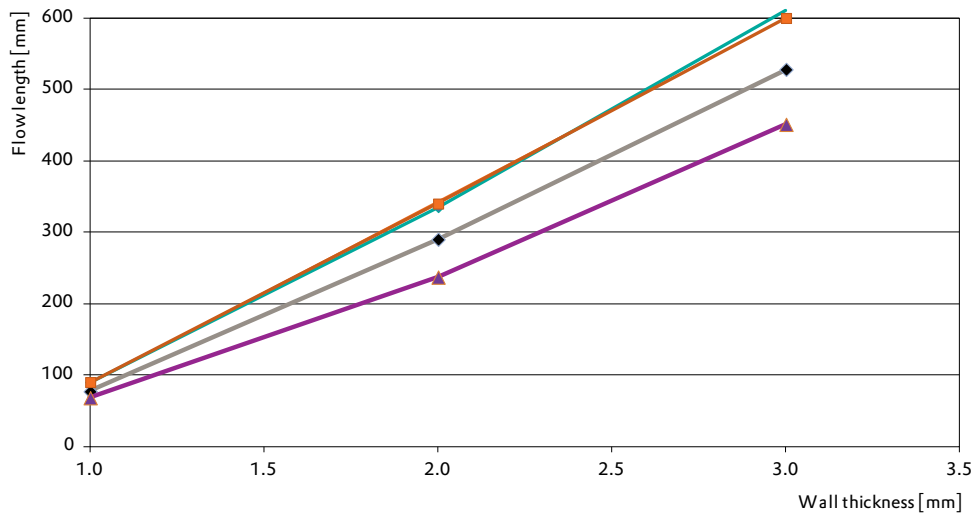
ACRYLITE® Hi-Gloss NTA-5 black can be processed by injection molding with a three-section screw suitable for the processing of PMMA.

Further information can be found in our brochure “Injection Molding with ACRYLITE® – Processing Guidelines”.

Physical form and packaging

ACRYLITE® Hi-Gloss NTA-5 black are supplied as cylindrical pellets in 25 kg polyethylene bags or 500 kg boxes with PE lining.

**Flow length as function of wall thickness
(In comparison to other ACRYLITE® Hi-Gloss Molding Compounds)**



- ACRYLITE® FT15 black 9V022
- ◆— ACRYLITE® FT8 black 9V022
- ACRYLITE® NTA-1 black 9V022
- ▲— ACRYLITE® NTA-5 black 9V022

Injection molding machine: Engel 200/110
 Injection pressure: 1000 bar
 Melt temperature: 250°C
 Mold temperature: 70°C
 Max. flow front velocity: 950 mm/s
 Width of flow path: 6 mm



Typical values

	Parameter	Unit	Standard	ACRYLITE® Hi-Gloss NTA-5 black
Mechanical values				
Tensile modulus	1 mm/min	MPa	ISO 527	2100
Tensile stress at yield	50 mm/min	MPa	ISO 527	54
Yield strain	50 mm/min	%	ISO 527	5
Nominal strain at break		%	ISO 527	48
Charpy impact strength	23°C	kJ/m ²	ISO 179/1eU	110
Thermal values				
Vicat softening temperature	B/50	°C	ISO 306	103
Glass transition temperature		°C	ISO 11357	113
Deflection temperature	0.45 MPa	°C	ISO 75	102
Deflection temperature	1.8 MPa	°C	ISO 75	96
Coefficient of linear thermal expansion	0-50°C	E-5/°K	ISO 11359	11
Flammability UL 94	1.6 mm	Class	IEC 707	HB
Rheological values				
Melt volume rate, MVR	230°C / 3.8 kg	cm ³ /10 min	ISO 1133	1.3
Melt volume rate, MVR	260°C / 3.8 kg	cm ³ /10 min	ISO 1133	8.0
Other values				
Density		g/cm ³	ISO 1183	1.16
Water absorption in water		%	ISO 62	1.5
Moisture absorption	23°C / 50 %	%	ISO 62	0.5
Recommended processing conditions				
Temperatures pre-drying		°C		80
Pre-drying time in dry air dryer		h		> 4
Melt temperature		°C		230-260
Mold temperature		°C		60-80

All the listed technical data are typical material data that were determined on clear-transparent materials and serve as a guide. They are not binding and do not constitute a material specification.

ACRYLITE® Hi-Gloss NTA-5

For more information on ACRYLITE® Hi-Gloss NTA-5, visit www.acrylite-polymers.com or call +1 800 225-0172

EVONIK CYRO LLC

Methacrylates
299 Jefferson Road
Parsippany, NJ 07054 USA
Phone +1 800 225-0172
www.acrylite-polymers.com

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