

## ACRYLITE® Optical HT

### Product Profile:

ACRYLITE® Optical HT is an amorphous thermoplastic molding compound (PMMA).

Typical properties of ACRYLITE® molding compounds are:

- good flow
- high mechanical strength, high surface hardness and abrasion resistance
- high light transmittance
- excellent weather resistance

Special properties of ACRYLITE® Optical HT are:

- increased heat deflection temperature under load and increased Vicat softening temperature
- excellent optical clarity
- UL registration RTI 105°C by UL (fi) 746C
- UL registration Outdoor Suitability by UL (f1) 746C

### Application:

ACRYLITE® Optical HT is particularly suitable for injection molding and extrusion of technical items.

### Examples:

optical waveguides, luminaire covers, automotive lighting, instrument cluster covers, optical lenses, displays, etc.

### Processing:

ACRYLITE® Optical HT can be processed on injection molding machines and on extruders with 3-zone general purpose screws for thermoplastics.

### Packaging:

ACRYLITE® Optical HT is supplied as pellets of uniform size, packaged in 25kg polyethylene bags; other packaging on request.

## Properties:

	Parameter	Unit	ASTM-Standard	ACRYLITE® Optical HT
<b>Mechanical Properties</b>				Typical Value
Tensile Strength		psi [MPa]	D 638	13500
Tensile Modulus		x10 <sup>6</sup> psi [GPa]	D 638	0.605
Tensile Elongation @ Yield		%	D 638	2 - 4
Tensile Elongation @ Break		%	D 638	2 - 4
Flexural Strength		psi [MPa]	D 790	16000
Flexural Modulus		x10 <sup>6</sup> psi [GPa]	D 790	0.43
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	0.30
Rockwell Hardness		M Scale	D 785	98
<b>Thermal Properties</b>				
Vicat Softening Point	50N, 50°C/h	°F [°C]	D 1525	244 [118]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	237 [114]
Flammability UL 94	1.5 mm	Class	IEC 707	HB
<b>Rheological Properties</b>				
Melt Flow Rate	230°C & 3.8 kg	g/10min	D 1238	2.2
<b>Optical Properties</b>				d = 3.2 mm
Light Transmittance		%	D 1003	92
Haze		%	D 1003	<0.5
Yellowness Index			E 313	<1
<b>Other Properties</b>				
Specific Gravity		.	D 792	1.19

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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