Product Information

ACRYLITE® M30 polymer

Product Profile:

ACRYLITE® M30 acrylic polymer is an amorphous thermoplastic molding compound based on polymethyl methacrylate (PMMA).

Typical properties of ACRYLITE® acrylic polymers are:
- excellent weather resistance
- high light transmission
- high mechanical strength
- high surface hardness and mar resistance
- good melt flow rate
- versatile colorability due to crystal clarity

The special properties of ACRYLITE® M30 polymer are:
- medium heat resistance
- high melt flow rate
- UV light transmitting
- medium levels of lubricant

Application:

Used for injection molding optical and technical parts.

Examples:

Medical instrument lenses, solar collector lenses, lighting lenses, fresnel lenses, light pipes, stereo system display lenses and point-of-purchase displays.

Processing:

ACRYLITE® M30 polymer can be processed in injection molding machines with 3- zone general purpose screws.

Packaging:

Available in 1500 lb. gaylord boxes; other packaging available on request.

Properties:

	Parameter	Unit	ASTM-Standard	ACRYLITE® M30 polymer
Mechanical Properties				Typical Value
Tensile Strength		psi [MPa]	D 638	9200 [63.4]
Tensile Modulus		x10⁶ psi [GPa]	D 638	0.47 [3.2]
Tensile Elongation @ Yield		%	D 638	2 - 4
Tensile Elongation @ Break		%	D 638	2 - 4
Flexural Strength		psi [MPa]	D 790	15500 [106.9]
Flexural Modulus		x10⁶ psi [GPa]	D 790	0.46 [3.2]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	0.36 [19]
Rockwell Hardness		M Scale	D 785	89
Thermal Properties				
Vicat Softening Point	264 psi	°F [°C]	D 1525	194 [90]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	180 [82]
Coeff. of Linear Therm. Expansion	32 - 312°F	in/ in/°F	D 696	0.00004
Coeff. of Linear Therm. Expansion	0 - 100°C	mm/mm/°C	D 696	0.000072
Rheological Properties				
Melt Flow Rate	230°C & 3.8 kg	g/10min	D 1238	24.0
Optical Properties	d = 3.2 mm			
Light Transmission		%	D 1003	92
Haze		%	D 1003	<1
Yellowness Index			D 1925	<1
Other Properties				
Specific Gravity			D 792	1.19
Water Absorption		% Max	D 570	0.3
Mold Shrinkage		in/in, mm/mm	D 955	0.003 - 0.006
Bulk Density		g/cc	D 1895	0.66

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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