ACRYLITE® MD™ L40

Polymethyl Methacrylate Acrylic

Evonik Cyro LLC

Message:

ACRYLITE® MD™ L40 acrylic polymer is an amorphous thermoplastic molding compound based on polymethyl methacrylate (PMMA) for the medical diagnostic industry.
Typical properties of ACRYLITE® MD™ acrylic polymers are:
exceptional ultra-violet light transmittance (UVT)
exceptional optical clarity
good dimensional stability for controlled fluid flow
The special properties of ACRYLITE® MD™ L40 polymer are:
highest melt flow rate
UV light transmitting
low heat resistance
medium levels of lubricant
Application:
Used for injection molded thin-wall medical devices requiring UV spectroscopy for fluid evaluation.

General Information	
Additive	Lubricant
Features	Amorphous Food Contact Acceptable Good Dimensional Stability High Clarity High Flow Lubricated
Uses	Medical/Healthcare Applications Thin-walled Parts
Agency Ratings	EC 1907/2006 (REACH) FDA 21 CFR 176.170 ISO 10993 2 USP Class VI 2
Appearance	Clear/Transparent
Forms	Pellets
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792
Apparent Density	0.66	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	26	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 to 0.60	%	ASTM D955
Water Absorption (Equilibrium)	< 0.30	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	84		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3240	MPa	ASTM D638
Tensile Strength	60.7	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	2.0 to 4.0	%	
Break	2.0 to 4.0	%	
Flexural Modulus	3030	MPa	ASTM D790
Flexural Strength	97.9	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 6.35 mm)	19	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Annealed, 6.35 mm)	74.0	°C	ASTM D648
Vicat Softening Temperature	82.0	°C	ASTM D1525
CLTE - Flow (0 to 156°C)	7.2E-5	cm/cm/°C	ASTM D696
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance (3200 µm)	92.0	%	ASTM D1003
Haze (3200 µm)	< 1.0	%	ASTM D1003
Yellowness Index (3.20 mm)	< 1.0	YI	ASTM D1925
UV Transmittance [1] (3.20 mm)	> 88	%	ASTM D1003
NOTE			
1.	Wavelength: 340 nm		

Recommended distributors for this material

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