ACRYLITE® MD™ H12

Polymethyl Methacrylate Acrylic

Evonik Cyro LLC

Message:

ACRYLITE® MD™ H12 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™ H12 polymer are:
medium heat resistance
medium melt flow rate
UV light transmitting
Lubricant free
Application:
Used for injection molding of medical devices requiring UV spectroscopy for fluid evaluation.

General Information	
Features	Amorphous Food Contact Acceptable Good Dimensional Stability High Clarity Medium Flow Medium Heat Resistance
Uses	Medical/Healthcare Applications
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)	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.60	%	ASTM D955
Water Absorption (Equilibrium)	< 0.30	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	94		ASTM D785

Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus	3240	MPa	ASTM D638
Tensile Strength	65.5	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	4.0 to 6.0	%	
Break	4.0 to 6.0	%	
Flexural Modulus	3380	MPa	ASTM D790
Flexural Strength	117	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)	93.9	°C	ASTM D648
Vicat Softening Temperature	105	°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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WECHAT