

ACRYLITE SuPure™ L40

Polymethyl Methacrylate Acrylic

Evonik CYRO LLC

Product Description

ACRYLITE® SuPure™ acrylic polymer is an exceptional pure polymer designed for applications that demand maximum cleanliness. Our proprietary purification process starts at CYRO's manufacturing plant and extends all the way to your facility's processing point - for a total purity solution. It ensures a polymer free of dust, fines and contaminants that consistently delivers exceptional clarity and eliminates costly defects.

Ideal for medical diagnostic device applications such as diagnostic test packs, rotors and cuvettes, ACRYLITE SuPure polymer offers light weight and excellent impact strength as well as the high-quality light transmittance that the visible eye needs under varying lighting conditions. ACRYLITE SuPure polymer offers better clarity and light transmission than polycarbonate and other thermoplastic polymers.

The ACRYLITE SuPure polymer solution includes a choice of two packaging systems that offer total end-to-end purity. These delivery systems guarantee a consistently superior product which will improve overall manufacturing costs, processes, and performance - from beginning to end.

General

Material Status	• Commercial: Active
Availability	• North America
Features	• Good Impact Resistance • High Flow • High Clarity • High Purity • Medium Heat Resistance
Uses	• Medical/Healthcare Applications
Agency Ratings	• EC 1907/2006 (REACH)
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.19 g/cm³	ASTM D792
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 (Saturation)	< 0.30 %	ASTM D570

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3240 MPa	ASTM D638
Tensile Strength (Yield)	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
Compressive Strength	94.5 MPa	ASTM D695

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (23°C, 6.35 mm)	16 J/m	ASTM D256

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	84	ASTM D785

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Annealed	73.9 °C	ASTM D648
Vicat Softening Temperature	82.2 °C	ASTM D1525
CLTE - Flow (0 to 100°C)	0.000072 cm/cm/°C	ASTM D696

Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ASTM D1003
Transmittance	92.0 %	ASTM D1003
Haze	< 1.0 %	ASTM D1003

Injection	Nominal Value Unit
Drying Temperature	71.1 °C
Drying Time	3.0 hr
Processing (Melt) Temp	216 to 238 °C
Mold Temperature	26.7 to 71.1 °C