OPTIX® ACRYLIC POLYMERS

OPTIX CA-41 CLEAR

OPTIX CA-41 is a high melt flow general-purpose grade acrylic polymer designed for the injection molding process. It is suitable for making thin-walled or large sized molded parts with complex and difficult-to-fill geometry. This grade is ideally designed for difficult moldings that require very high flow or very long flow length. OPTIX CA-41 is also used as a carrier resin for color concentrates.

APPLICATIONS

Fish tank aquariums, sample holders, molded parts, color concentrate carrier

TYPICAL PROPERTIES*

Property	Test Method	Units	Values
OPTICAL			
Luminous Transmittance	ASTM D1003	%	92.0
Haze	ASTM D1003	%	< 2.0
Refractive Index	ASTM D542	-	1.49
RHEOLOGICAL			
Melt Flow Rate (230°C/3.8kg)	ASTM D1238	g/10 min	25
MECHANICAL			
Tensile Strength	ASTM D638	psi (MPa)	7,800 (54)
Tensile Elongation	ASTM D638	%	2.5
Tensile Modulus of Elasticity	ASTM D638	psi (MPa)	408,000 (2,800)
Flexural Strength	ASTM D790	psi (MPa)	11,700 (81)
Flexural Modulus	ASTM D790	psi (MPa)	420,000 (2,900)
Impact Strength – Notched Izod (1/4")	ASTM D256	ft·lbf/in. (J/m)	0.30 (16)
Impact Strength – Falling Dart (GB, 1/8")	ASTM D5420	in.·lbf (J)	2.0 (0.23)
Rockwell Hardness (M Scale)	ASTM D785	-	84
THERMAL			
Vicat Softening Temperature (50N, 50°C/hr)	ASTM D1525	°F (°C)	182 (83)
Heat Deflection Temperature Under Load (264 psi)	ASTM D648	°F (°C)	163 (73)
Coefficient of Linear Thermal Expansion	ASTM D696	cm/(cm·°C)	6×10^{-5}
Mold Shrinkage	ASTM D955	%	0.2 – 0.6
OTHER			
Specific Gravity	ASTM D792	-	1.19
Flammability Class	UL 94	-	HB
Water Absorption	ASTM D570	%	0.3
ASTM Classification	ASTM D788	-	0111V7

* Typical Properties are not intended for specification purposes

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