

OPTIX CA-75 CLEAR

OPTIX CA-75 is a medium melt flow general-purpose grade acrylic polymer with high heat resistance. It is designed for injection molding and extrusion processes. OPTIX CA-75 is found in a variety of applications where superior optical clarity, heat resistance, and scratch resistance are required. OPTIX CA-75 is commonly found in lighting applications where bright and higher-temperature light sources are used.

APPLICATIONS

Automotive lenses, reflectors, lighting lens and covers, and other optical lenses

TYPICAL PROPERTIES*			
Property	Test Method	Units	Values
OPTICAL			
Luminous Transmittance	ASTM D1003	%	92.0
Haze	ASTM D1003	%	< 1.0
Refractive Index	ASTM D542	-	1.49
RHEOLOGICAL			
Melt Flow Rate (230°C/3.8kg)	ASTM D1238	g/10 min	3.2
MECHANICAL			
Tensile Strength	ASTM D638	psi (MPa)	10,300 (71)
Tensile Elongation	ASTM D638	%	3.1
Tensile Modulus of Elasticity	ASTM D638	psi (MPa)	470,000 (3,200)
Flexural Strength	ASTM D790	psi (MPa)	17,500 (121)
Flexural Modulus	ASTM D790	psi (MPa)	500,000 (3,400)
Impact Strength – Notched Izod (1/4")	ASTM D256	ft-lbf/in. (J/m)	0.35 (19)
Impact Strength – Falling Dart (GB, 1/8")	ASTM D5420	in.-lbf (J)	2.0 (0.23)
Rockwell Hardness (M Scale)	ASTM D785	-	95
THERMAL			
Vicat Softening Temperature (50N, 50°C/hr)	ASTM D1525	°F (°C)	227 (108)
Heat Deflection Temperature Under Load (264 psi)	ASTM D648	°F (°C)	212 (100)
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
Relative Thermal Index	UL 746B	°C	90, f1
Water Absorption	ASTM D570	%	0.3
3-year Outdoor Weathering	SAE J576 (AMECA)	-	Listed
ASTM Classification	ASTM D788	-	0141V3

*Typical properties are not intended for specification purposes

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.