

Optix® CA-75 CLEAR

Polymethyl Methacrylate Acrylic

Plaskolite, Inc.

PROSPECTOR®

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Technical Data

Product Description

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 lenses and covers, and other optical lenses

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
UL Yellow Card ²	• E167330-10231436		
Search for UL Yellow Card	• Plaskolite, Inc. • Optix®		
Availability	• Europe	• North America	
Features	• General Purpose • Good Scratch Resistance	• High Clarity • High Heat Resistance	• Medium Flow
Uses	• Automotive Applications • General Purpose	• Lenses • Reflectors	
Automotive Specifications	• GM GMP.PMMA.002	• SAE J576	
Appearance	• Clear/Transparent		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.19 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.2 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.20 to 0.60 %	ASTM D955
Water Absorption (Equilibrium)	0.30 %	ASTM D570
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3200 MPa	ASTM D638
Tensile Strength	71.0 MPa	ASTM D638
Tensile Elongation (Break)	3.1 %	ASTM D638
Flexural Modulus	3400 MPa	ASTM D790
Flexural Strength	121 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact (6.35 mm)	19 J/m	ASTM D256
Gardner Impact ⁴ (3.18 mm)	0.230 J	ASTM D5420
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	95	ASTM D785
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	100 °C	ASTM D648
Vicat Softening Temperature	108 °C	ASTM D1525 ⁵
CLTE - Flow	6.0E-5 cm/cm/°C	ASTM D696
RTI Elec	90.0 °C	UL 746B
RTI Imp	90.0 °C	UL 746B
RTI Str	90.0 °C	UL 746B
Flammability	Nominal Value Unit	Test Method
Flame Rating	HB	UL 94



Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ASTM D542
Light Transmittance	92.0 %	ASTM D1003
Haze	< 1.00 %	ASTM D1003

Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- ³ Typical properties: these are not to be construed as specifications.
- ⁴ Geometry GB
- ⁵ Rate A (50°C/h), Loading 2 (50 N)

