

APEL™ APL5014DP

Mitsui Chemicals America, Inc. - *Cyclic Olefin Copolymer*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Uses	• Optical Applications
Forms	• Pellets

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04		ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	36	g/10 min	ASTM D1238
Molding Shrinkage - Flow	6.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	8700	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	464000	psi	ASTM D790
Flexural Strength	14500	psi	ASTM D790
Films	Nominal Value	Unit	Test Method
Water Vapor Transmission Rate	0.23	g·mil/100in ² /atm/24 hr	ASTM F1249
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	0.47	ft·lb/in	ASTM D256
Unnotched Izod Impact (Area)	4.76	ft·lb/in ²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	257	°F	ASTM D648
Glass Transition Temperature	275	°F	DSC
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.540		ASTM D542
Light Transmittance	90.0	%	ASTM D1003
Haze	2.00	%	ASTM D1003

Additional Information

TMA: 147°C

Notes

¹ Typical properties: these are not to be construed as specifications.

