

## Polyplastics TOPAS® 6013 Cyclic Olefin Copolymer (COC) (Asia/Pacific Grade)

Category : Polymer , Thermoplastic , Cyclo Olefin Polymer

### Material Notes:

Due to its high transparency, low levels of eluates, superior chemical resistance, and high heat deflection temperature, this grade is suitable for products such as pharmaceutical packaging and diagnostic equipment. Information provided by PolyPlastics.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polyplastics-TOPAS-6013-Cyclic-Olefin-Copolymer-COC-AsiaPacific-Grade.php](http://www.lookpolymers.com/polymer_Polyplastics-TOPAS-6013-Cyclic-Olefin-Copolymer-COC-AsiaPacific-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.02 g/cc	0.0368 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.010 % @Temperature 23.0 °C	0.010 % @Temperature 73.4 °F	Immersion; ISO 62
Water Vapor Transmission	0.0350 g/m <sup>2</sup> /day	0.00225 g/100 in <sup>2</sup> /day	[g·mm/m<sup>2</sup>·d] @ 23°C and 85% RH; DIN 53122
	0.250 g/m <sup>2</sup> /day	0.0161 g/100 in <sup>2</sup> /day	Good barrier properties
Melt Flow	6.0 g/10 min @Load 2.16 kg, Temperature 245 °C	6.0 g/10 min @Load 4.76 lb, Temperature 473 °F	ISO 1133
	14 g/10 min @Load 2.16 kg, Temperature 260 °C	14 g/10 min @Load 4.76 lb, Temperature 500 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	63.0 MPa	9140 psi	5mm/min; ISO 527-1, 2
Elongation at Break	2.7 %	2.7 %	5mm/min; ISO 527-1, 2
Tensile Modulus	2.90 GPa	421 ksi	1mm/min; ISO 527-1, 2
Charpy Impact Unnotched	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	ISO 179/1eU
Charpy Impact, Notched	0.180 J/cm <sup>2</sup>	0.857 ft-lb/in <sup>2</sup>	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	130 °C	266 °F	
Deflection Temperature at 1.8 MPa (264 psi)	119 °C	246 °F	ISO 75-1, 2
Glass Transition Temp, Tg	140 °C	284 °F	

Optical Properties	Metric	English	Comments
Refractive Index	1.53	1.53	
Transmission, Visible	91 %	91 %	ISO 13468-1

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.2	2.2	
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	
Dissipation Factor	0.00010	0.00010	
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	

Descriptive Properties	Value	Comments
Pencil Hardness	HB	JIS K5401
Resistance to Acids	Usable	
Resistance to Alcohols	Usable	
Resistance to Alkalis	Usable	
Resistance to Aromatic Solvents	Not Usable	
Resistance to Chlorinated Solvents	Not Usable	
Resistance to Esters	Usable	
Resistance to Gasoline	Not Usable	
Resistance to Ketones	Usable	
Resistance to Oils	Not Usable	

## Contact Songhan Plastic Technology Co.,Ltd.

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