

## Covestro Makrolon® CD 2005 Polycarbonate, Optical/Compact Disc Grade (discontinued \*\*)

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Optical Grade

### Material Notes:

Injection molding grade with exceptionally good flow, for optical storage media such as CD. Information provided by Bayer. As of 1 September 2015, Bayer Material Science was separated from Bayer AG and has officially adopted its new name – Covestro. This product was discontinued prior to the separation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Covestro-Makrolon-CD-2005-Polycarbonate-OpticalCompact-Disc-Grade-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Covestro-Makrolon-CD-2005-Polycarbonate-OpticalCompact-Disc-Grade-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	
Water Absorption	0.35 %	0.35 %	Saturation in water
Moisture Absorption at Equilibrium	0.15 %	0.15 %	Equilibrium at 50% RH
Water Absorption at Saturation	0.35 %	0.35 %	
Melt Flow	60 g/10 min @Load 1.20 kg, Temperature 300 °C	60 g/10 min @Load 2.65 lb, Temperature 572 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	60.0 MPa	8700 psi	
Elongation at Break	>= 50 %	>= 50 %	Nominal
Elongation at Yield	6.0 %	6.0 %	
Tensile Modulus	2.30 GPa	334 ksi	
Charpy Impact Unnotched	NB	NB	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 µm/m-°C	38.9 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	137 °C	279 °F	
Deflection Temperature at 1.8 MPa			

(264 psi) Thermal Properties	122 °C Metric	252 °F English	Comments
Vicat Softening Point	143 °C	289 °F	
Glass Transition Temp, Tg	145 °C	293 °F	
UL RTI, Electrical	75.0 °C @Thickness 0.710 mm	167 °F @Thickness 0.0280 in	
UL RTI, Mechanical with Impact	75.0 °C @Thickness 0.710 mm	167 °F @Thickness 0.0280 in	
UL RTI, Mechanical without Impact	75.0 °C @Thickness 0.710 mm	167 °F @Thickness 0.0280 in	
Flammability, UL94	V-2 @Thickness 0.710 mm	V-2 @Thickness 0.0280 in	

Optical Properties	Metric	English	Comments
Refractive Index	1.583	1.583	DIN 5026-1
Transmission, Visible	>= 89 % @Thickness 1.00 mm	>= 89 % @Thickness 0.0394 in	ISO 489-A

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Surface Resistance	1.00e+15 ohm	1.00e+15 ohm	
Dielectric Strength	30.0 kV/mm	762 kV/in	

Processing Properties	Metric	English	Comments
Melt Temperature	305 - 335 °C	581 - 635 °F	

## Contact Songhan Plastic Technology Co.,Ltd.

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