

Covestro Makrolon® 6870 Polycarbonate (discontinued **)

Categories: [Polymer](#); [Thermoplastic](#); [Polycarbonate \(PC\)](#); [Polycarbonate, Unreinforced, Flame Retardant](#)

Material Notes: Pseudoplastic behavior and high viscosity extrusion and injection molding grade, less resistant to UV than e.g. MAKROLON 6555.

Information provided by Bayer.



As of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and officially adopted its new name – Covestro.

Key Words: PC

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	
Moisture Absorption at Equilibrium	0.15 %	0.15 %	50% RH
Water Absorption at Saturation	0.35 %	0.35 %	
	0.35 %	0.35 %	
Melt Flow	2.0 g/10 min @Load 1.20 kg, Temperature 300 °C	2.0 g/10 min @Load 2.65 lb, Temperature 572 °F	


Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	63.0 MPa	9140 psi	
Elongation at Break	>= 4.0 %	>= 4.0 %	Nominal
Elongation at Yield	6.0 %	6.0 %	
Tensile Modulus	2.40 GPa	348 ksi	
Charpy Impact Unnotched	NB	NB	
Tensile Creep Modulus, 1 hour	3800 MPa	551000 psi	
Tensile Creep Modulus, 1000 hours	3600 MPa	522000 psi	

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 Constant 	2.9	2.9	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	3.0	3.0	
Dielectric Strength	@Frequency 100 Hz	@Frequency 100 Hz	
	30.0 kV/mm	762 kV/in	
Dissipation Factor 	0.0010	0.0010	
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.010	0.010	
Comparative Tracking Index	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	225 V	225 V	

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)	136 °C	277 °F	
Deflection Temperature at 1.8 MPa (264 psi)	126 °C	259 °F	
Vicat Softening Point	145 °C	293 °F	
Glass Transition Temp, Tg	148 °C	298 °F	
Flammability, UL94	V-0	V-0	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	35 %	35 %	

Optical Properties	Metric	English	Comments
Transmission, Visible	81 %	81 %	ISO 489-A
	@Thickness 1.00 mm	@Thickness 0.0394 in	

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Materials flagged as discontinued () are no longer part of the manufacturer's standard product line according to our latest information. These materials may be available by special order, in distribution inventory, or reinstated as an active product. Data sheets from materials that are no longer available remain in MatWeb to assist users in finding replacement materials.

Users of our Advanced Search (registration required) may exclude discontinued materials from search results.

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