Covestro Makroblend® EL 703 Polycarbonate + Polyester-based Blend, Impact Modified, Flame-Retardant, UV Stabilized

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/PET Polyester Blend , Polyester, TP , Polyethylene Terephthalate (PET)

Material Notes:

Information provided by Bayer Corporation, Plastics DivisionAs of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and officially adopted its new name – Covestro.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Covestro-Makroblend-EL-703-Polycarbonate-Polyester-based-Blend-Impact-Modified-Flame-Retardant-UV-Stabilized.php

Physical Properties	Metric	English	Comments
Density	1.29 g/cc	0.0466 lb/in³	ASTM D792
Water Absorption	0.16 %	0.16 %	24 hour immersion; ASTM D570
Water Absorption at Saturation	0.34 %	0.34 %	Equilibrium Immersion; ASTM D570
Linear Mold Shrinkage	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D955
Melt Flow	20 - 30 g/10 min @Load 5.00 kg, Temperature 265 °C	20 - 30 g/10 min @Load 11.0 lb, Temperature 509 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	117	117	ASTM D785
Tensile Strength, Ultimate	51.0 MPa	7400 psi	ASTM D638
Tensile Strength, Yield	55.2 MPa	8010 psi	ASTM D638
Elongation at Break	110 %	110 %	ASTM D638
Elongation at Yield	5.0 %	5.0 %	ASTM D638
Flexural Yield Strength	90.0 MPa	13100 psi	ASTM D790
Flexural Modulus	2.41 GPa	350 ksi	ASTM D790
Izod Impact, Notched	7.50 J/cm @Thickness 3.17 mm	14.1 ft-lb/in @Thickness 0.125 in	ASTM D256
	1.60 J/cm @Thickness 3.17 mm, Temperature -29.0 °C	3.00 ft-lb/in @Thickness 0.125 in, Temperature -20.2 °F	ASTM D256
Impact Test	50.0 J	36.9 ft-lb	Instrumented Impact, Total Energy; 3.2 mm thick, 15 mph, 3 in. clamp, 0.5

Mechanical Properties	Metric	English	Comments
	@Thickness 3.20 mm	@Thickness 0.126 in	in, dart; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear	65.0 µm/m-°C @Temperature 20.0 °C	36.1 µin/in-°F @Temperature 68.0 °F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	119 °C @Thickness 6.40 mm	246 °F @Thickness 0.252 in	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	100 °C @Thickness 6.35 mm	212 °F @Thickness 0.250 in	ASTM D648
UL RTI, Electrical	105 °C @Thickness 1.50 mm	221 °F @Thickness 0.0591 in	UL746B
UL RTI, Mechanical with Impact	90.0 °C @Thickness 1.50 mm	194 °F @Thickness 0.0591 in	UL746B
UL RTI, Mechanical without Impact	105 °C @Thickness 1.50 mm	221 °F @Thickness 0.0591 in	UL746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	
	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	

Electrical Properties	Metric	English	Comments
Arc Resistance	60 - 120 sec @Thickness 3.00 mm	60 - 120 sec @Thickness 0.118 in	UL Rating PLC 6 (60-120 sec)
Comparative Tracking Index	250 - 400 V @Thickness 3.00 mm	250 - 400 V @Thickness 0.118 in	UL Rating PLC 2 (250-400 V)
Hot Wire Ignition, HWI	60 - 120 sec @Thickness 3.00 mm	60 - 120 sec @Thickness 0.118 in	UL Rating PLC 1 (60-120 sec)
High Amp Arc Ignition, HAI	>= 120 arcs @Thickness 1.50 mm	>= 120 arcs @Thickness 0.0591 in	UL Rating PLC 0 (>120 arcs)
High Voltage Arc-Tracking Rate, HVTR	>= 150 mm/min @Thickness 3.00 mm	>= 5.91 in/min @Thickness 0.118 in	UL Rating PLC 4 (>150 mm/min.)

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 277 °C	500 - 531 °F	

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