Makroblend® EL703

Polycarbonate + PET

Covestro - Polycarbonates

Message:

(PC+PET) blend; unreinforced; flame-retardant; UV-stabilized; impact modified; high flow; injection molding grade. Good impact strength, dimensional stability and chemical resistance. Uses include outdoor electrical enclosures. UL746C f1 rated.

General Information			
UL YellowCard	E41613-101010260		
Additive	Flame Retardant Impact Modifier UV Stabilizer		
Features	Flame Retardant Good Chemical Resistance Good Dimensional Stability Good Impact Resistance High Flow Impact Modified		
Uses	Electrical/Electronic Applications		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	1.30	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (270°C/5.0 kg)	26.0	cm³/10min	ISO 1133
Molding Shrinkage [1]			ISO 2577
Across Flow	0.60 to 0.80	%	
Flow	0.60 to 0.80	%	
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Outdoor Suitability	f1		UL 746C
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2300	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 23°C	56.0	MPa	
Break, 23°C	55.0	MPa	
Tensile Strain (Yield, 23°C)	4.5	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	100	%	ISO 527-2/50

Flexural Modulus [2] (23°C)	2250	MPa	ISO 178
Flexural Stress [3]			ISO 178
23°C	83.0	MPa	
3.5% Strain,23°C	71.0	MPa	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	15	kJ/m^2	
23°C	50	kJ/m^2	
Notched Izod Impact Strength			ISO 180/A
-30°C	15	kJ/m^2	
23°C	50	kJ/m^2	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	119	°C	ISO 75-2/B
1.8 MPa, Unannealed	96.0	°C	ISO 75-2/A
Vicat Softening Temperature	132	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 23 to 55°C	7.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	8.0E-5	cm/cm/°C	
Thermal Conductivity [4] (23°C)	0.20	W/m/K	ISO 8302
RTI Elec (1.50 mm)	105	°C	UL 746
RTI Imp (1.50 mm)	90.0	°C	UL 746
RTI Str (1.50 mm)	105	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	34	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.50		
23°C, 1 MHz	3.30		
Dissipation Factor			IEC 60250
23°C, 100 Hz	3.0E-3		
23°C, 1 MHz	0.020		
Comparative Tracking Index (Solution A)	200	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	V-0		
	V-0		
3.00 mm	5VA		
NOTE			

1.	600 bar
2.	2.0 mm/min
3.	2.0 mm/min
4.	Cross-flow

Recommended distributors for this material

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