

Makroblend® UT1018

Polycarbonate + PET

Covestro - Polycarbonates

Message:

(PET+PC) blend, unreinforced; impact modified, injection molding grade. Good dimensional stability; excellent low-temperature impact and chemical resistance. UL746C f2 rated.

General Information			
UL YellowCard	E41613-100711270		
Additive	Impact Modifier		
Features	Good Chemical Resistance		
	Good Dimensional Stability		
	Impact Modified		
	Low Temperature Impact Resistance		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.22	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (270°C/5.0 kg)	13.0	cm ³ /10min	ISO 1133
Molding Shrinkage ¹			ISO 2577
Across Flow	0.70 to 0.90	%	
Flow	0.70 to 0.90	%	
Water Absorption			ISO 62
Saturation, 23°C	0.70	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Outdoor Suitability	f2		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2000	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 23°C	49.0	MPa	
Break, 23°C	46.0	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)	1900	MPa	ISO 178
Flexural Stress ³			ISO 178
23°C	70.0	MPa	
3.5% Strain, 23°C	60.0	MPa	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA

-30°C	35	kJ/m ²	
23°C	65	kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-20°C	50	kJ/m ²	
23°C	60	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	108	°C	ISO 75-2/B
1.8 MPa, Unannealed	78.0	°C	ISO 75-2/A
Vicat Softening Temperature	132	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 23 to 55°C	8.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	cm/cm/°C	
Thermal Conductivity ⁴ (23°C)	0.20	W/m/K	ISO 8302
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	3.20		
23°C, 1 MHz	3.10		
Dissipation Factor			IEC 60250
23°C, 100 Hz	2.0E-3		
23°C, 1 MHz	0.015		
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	HB		
3.00 mm	HB		
NOTE			
1.	600 bar		
2.	2.0 mm/min		
3.	2.0 mm/min		
4.	Cross-flow		

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