

Generic PC+PBT

Polycarbonate + PBT

Generic

Message:

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General Information			
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.16 - 1.24	g/cm³	ASTM D792
23°C	1.17 - 1.34	g/cm³	ISO 1183
Apparent Density	0.65 - 0.80	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	8.7 - 20	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	7.00 - 13.3	cm³/10min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.29 - 1.3	%	ASTM D955
Transverse flow: 23°C	0.60 - 1.7	%	ASTM D955
23°C	0.79 - 1.5	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.042 - 0.21	%	ASTM D570
23°C, 24 hr	0.080 - 0.50	%	ISO 62
Saturated, 23°C	0.071 - 0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.046 - 0.21	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (23°C)	89 - 117		ASTM D785
Ball Indentation Hardness	81.8 - 108	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	1810 - 2250	MPa	ASTM D638
23°C	1880 - 2220	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	43.5 - 66.4	MPa	ASTM D638
Yield, 23°C	44.0 - 60.5	MPa	ISO 527-2
Fracture, 23°C	40.3 - 61.2	MPa	ASTM D638
Fracture, 23°C	39.6 - 60.6	MPa	ISO 527-2
23°C	47.7 - 60.5	MPa	ASTM D638
Tensile Elongation			
Yield, 23°C	3.7 - 7.6	%	ASTM D638
Yield, 23°C	3.3 - 5.1	%	ISO 527-2

Fracture, 23°C	1.5 - 150	%	ASTM D638
Fracture, 23°C	18 - 150	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	10 - 51	%	ISO 527-2
Flexural Modulus			
23°C	1450 - 2430	MPa	ASTM D790
23°C	1880 - 2510	MPa	ISO 178
Flexural Strength			
23°C	66.9 - 91.4	MPa	ASTM D790
23°C	64.3 - 95.0	MPa	ISO 178
Yield, 23°C	66.7 - 102	MPa	ASTM D790
Fracture, 23°C	69.0 - 83.3	MPa	ASTM D790
Taber Abrasion Resistance (23°C)	30.0 - 30.6	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	19 - 61	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	38 - 820	J/m	ASTM D256
23°C	30 - 65	kJ/m ²	ISO 180
Instrumented Dart Impact			
23°C	48.6 - 71.1	J	ASTM D3763
23°C	45.0 - 110	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	87.5 - 245	°C	ASTM D648
0.45 MPa, not annealed	90.0 - 125	°C	ISO 75-2/B
1.8 MPa, not annealed	72.8 - 107	°C	ASTM D648
1.8 MPa, not annealed	73.6 - 90.5	°C	ISO 75-2/A
Vicat Softening Temperature			
--	117 - 136	°C	ASTM D1525
--	114 - 136	°C	ISO 306
Melting Temperature			
--	225	°C	ISO 11357-3
--	225 - 226	°C	ASTM D3418
Linear thermal expansion coefficient			
Flow	1.5E-5 - 6.5E-5	cm/cm/°C	ASTM D696
Flow	7.9E-5 - 9.1E-5	cm/cm/°C	ASTM E831
Flow	8.1E-5 - 9.1E-5	cm/cm/°C	ISO 11359-2
Lateral	7.5E-5 - 1.1E-4	cm/cm/°C	ASTM E831
Lateral	9.0E-5 - 1.1E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.18 - 0.20	W/m/K	ISO 8302
RTI Elec	74.0 - 130	°C	UL 746
RTI Imp	74.0 - 130	°C	UL 746
RTI	74.0 - 140	°C	UL 746

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	5.5E+10 - 1.0E+17	ohms	IEC 60093
Volume Resistivity			
23°C	1.0E+13 - 1.0E+18	ohms·cm	ASTM D257
23°C	1.0E+14 - 2.5E+17	ohms·cm	IEC 60093
Dielectric Strength			
23°C	18 - 25	kV/mm	ASTM D149
23°C	17 - 30	kV/mm	IEC 60243-1
Dielectric Constant			
23°C	3.00 - 3.20		ASTM D150
23°C	3.19		IEC 60250
Dissipation Factor (23°C)	1.9E-3 - 0.020		IEC 60250
Arc Resistance	82.5 - 131	sec	ASTM D495
Comparative Tracking Index	113 - 600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index	650 - 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	720 - 828	°C	IEC 60695-2-13
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity	210 - 261	Pa·s	ASTM D3835
Injection	Nominal Value	Unit	
Drying Temperature	94.0 - 123	°C	
Drying Time	2.8 - 5.2	hr	
Drying Time, Maximum	10	hr	
Suggested Max Moisture	0.020 - 0.024	%	
Suggested Shot Size	60 - 65	%	
Hopper Temperature	50.0 - 50.5	°C	
Rear Temperature	239 - 259	°C	
Middle Temperature	252 - 261	°C	
Front Temperature	251 - 267	°C	
Nozzle Temperature	251 - 265	°C	
Processing (Melt) Temp	250 - 271	°C	
Mold Temperature	61.5 - 76.9	°C	
Back Pressure	0.172 - 0.534	MPa	
Screw Speed	43 - 76	rpm	
Vent Depth	0.017 - 0.033	mm	
Injection instructions			

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