

PRL-TP-GP1

PBT

Polymer Resources, Ltd.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	18.5	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	2.16	kg	-
Mold Shrinkage, MD	0.019	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Charpy notched impact strength, +23°C	5.26	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	4.62	kJ/m ²	ISO 180/1A

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Strength at Yield	51.7	MPa	ASTM D 638
Tensile Strength at Break	51.7	MPa	ASTM D 638
Elongation at Yield	3.5	%	ASTM D 638
Elongation at Break	200	%	ASTM D 638
Flexural Modulus	2310	MPa	ASTM D 790
Flexural Strength	79.3	MPa	ASTM D 790
Rockwell Hardness	M78	-	ASTM D 785
Izod Impact notched, 1/8 in	53.4	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ASTM Data			
DTUL @ 66 psi	149	°C	ASTM D 648
DTUL @ 264 psi	52.8	°C	ASTM D 648
Vicat Temperature	190	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	15.4	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
Dielectric Constant, 1 MHz	3.1	-	ASTM D 150
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	1310	kg/m ³	ISO 1183
Water Absorption, 24hr	0.08	%	ASTM D 570
Water Absorption, Equilibrium	0.34	%	ASTM D 570
Density	1310	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	116 - 121	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	232 - 260	°C	-
Mold temperature	43.3 - 76.7	°C	-
Zone 1	232 - 249	°C	-
Zone 2	238 - 254	°C	-
Zone 3	243 - 260	°C	-

Characteristics**Processing**

Injection Molding

Applications

General Purpose

Delivery form

Pellets

Regional Availability

North America

Additives

Lubricants