

PRL PEI-GP1

PEI

Polymer Resources, Ltd.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	14	g/10min	ASTM D 1238
Temperature	337	°C	-
Load	6.6	kg	-
Mold Shrinkage, MD	0.006	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Modulus	3516	MPa	ASTM D 638
Tensile Strength at Yield	103	MPa	ASTM D 638
Tensile Strength at Break	103	MPa	ASTM D 638
Elongation at Yield	7	%	ASTM D 638
Elongation at Break	60	%	ASTM D 638
Flexural Modulus	3447	MPa	ASTM D 790
Flexural Strength	159	MPa	ASTM D 790
Rockwell Hardness	M109	-	ASTM D 785
Izod Impact notched, 1/8 in	53.4	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ASTM Data			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	15	mm	-
Coefficient of Thermal Expansion, MD	55.8	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	54	E-6/K	ASTM D 696
DTUL @ 66 psi	204	°C	ASTM D 648
DTUL @ 264 psi	196	°C	ASTM D 648
Vicat Temperature	218	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	32.3	kV/mm	ASTM D 149
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	0.25	%	ASTM D 570
Water Absorption, Equilibrium	1.3	%	ASTM D 570
Density	1270	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	143 - 149	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	338 - 399	°C	-
Mold temperature	107 - 177	°C	-
Zone 1	332 - 399	°C	-
Zone 2	338 - 399	°C	-
Zone 3	343 - 399	°C	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Delivery form

Pellets

Regional Availability

North America

Additives

Flame retarding agent