

Technical Data Sheet
PERLEX® R221
 Polycarbonate
 Engineering Plastics



General	
Features	• Medium Flow
Uses	• Electrical Parts

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	16 g/10 min	16 g/10 min	ISO 1133
Molding Shrinkage	0.50 to 0.70 %	0.50 to 0.70 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	341000 psi	2350 MPa	ISO 527-2
Tensile Stress (Yield)	8700 psi	60.0 MPa	ISO 527-2
Tensile Strain (Break)	100 %	100 %	ISO 527-2
Flexural Modulus	334000 psi	2300 MPa	ISO 178
Flexural Stress	13100 psi	90.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Area) (73°F (23°C))	21.4 ft·lb/in ²	45.0 kJ/m ²	ASTM D256

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	275 °F	135 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	257 °F	125 °C	ISO 75-2/A
Vicat Softening Temperature	288 °F	142 °C	ISO 306/B50

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302
Flame Rating (0.06 in (1.6 mm))	V-2	V-2	UL 94
Glow Wire Ignition Temperature			IEC 60695-2-13
0.04 in (1.0 mm)	1560 °F	850 °C	
0.08 in (2.0 mm)	1560 °F	850 °C	
0.12 in (3.0 mm)	1560 °F	850 °C	

Notes

These are typical property values not to be construed as specification limits.