

Technical Data Sheet
PERLEX® R3510
Polycarbonate
Engineering Plastics



General			
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight		
Additive	• Flame Retardant		
Features	• Flame Retardant		
Uses	• Machine/Mechanical Parts		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.25 g/cm³	1.25 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10 g/10 min	10 g/10 min	ISO 1133
Molding Shrinkage			
Across Flow	0.50 %	0.50 %	ISO 294-4
Flow	0.30 %	0.30 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	587000 psi	4050 MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	10900 psi	75.0 MPa	
Break	12000 psi	83.0 MPa	
Tensile Strain			ISO 527-2
Yield	5.0 %	5.0 %	
Break	5.0 %	5.0 %	
Flexural Modulus	566000 psi	3900 MPa	ISO 178
Flexural Stress	19600 psi	135 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	2.9 ft·lb/in²	6.0 kJ/m²	
73°F (23°C)	2.9 ft·lb/in²	6.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179
-22°F (-30°C)	28 ft·lb/in²	58 kJ/m²	
73°F (23°C)	32 ft·lb/in²	68 kJ/m²	
Notched Izod Impact (Area) (73°F (23°C))	4.76 ft·lb/in²	10.0 kJ/m²	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	262 °F	128 °C	ISO 75-2/A
Vicat Softening Temperature			
--	306 °F	152 °C	ISO 306/A50
--	293 °F	145 °C	ISO 306/B50
RTI Elec			UL 746
0.06 in (1.6 mm)	176 °F	80.0 °C	
0.13 in (3.2 mm)	176 °F	80.0 °C	
RTI Imp			UL 746
0.06 in (1.6 mm)	176 °F	80.0 °C	
0.13 in (3.2 mm)	176 °F	80.0 °C	
RTI Str			UL 746
0.06 in (1.6 mm)	176 °F	80.0 °C	
0.13 in (3.2 mm)	176 °F	80.0 °C	

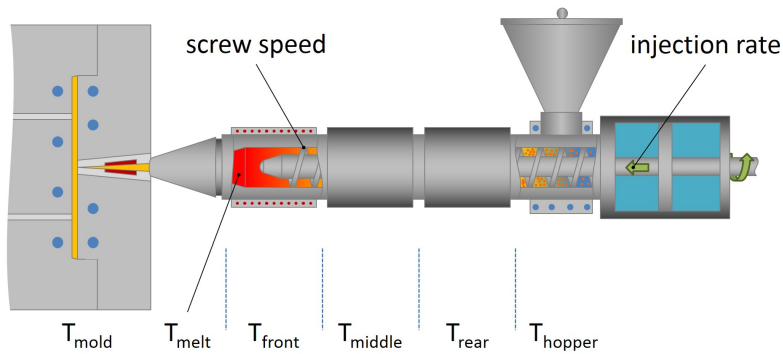
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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	175 V	175 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ¹			
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	FMVSS 302
Flame Rating			UL 94
0.06 in (1.6 mm)	V-0	V-0	
0.13 in (3.2 mm)	V-0	V-0	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.04 in (1.0 mm)	1760 °F	960 °C	
0.08 in (2.0 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	230 to 248 °F	110 to 120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	518 to 590 °F	270 to 310 °C
Mold Temperature	122 to 176 °F	50 to 80 °C

Notes

¹ Self-Extinguishing

Notes

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