

Technical Data Sheet



Perlex R5563

Polycarbonate
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant • UV Stabilizer		
Features	• Flame Retardant • UV Resistant		
Uses	• Electrical Parts		
Appearance	• Opaque		
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)	12 g/10 min	12 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	334000 psi	2300 MPa	ISO 527-1
Tensile Stress			ISO 527-2
Yield	8700 psi	60.0 MPa	
Break	6960 psi	48.0 MPa	
Tensile Strain			ISO 527-2
Yield	5.0 %	5.0 %	
Break	> 50 %	> 50 %	
Flexural Modulus	348000 psi	2400 MPa	ISO 178
Flexural Stress	13800 psi	95.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	5.2 ft·lb/in ²	11 kJ/m ²	
73°F (23°C)	22 ft·lb/in ²	47 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
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
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	275 °F	135 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	266 °F	130 °C	ISO 75-2/A
Vicat Softening Temperature			
--	293 °F	145 °C	ISO 306/B50
--	302 °F	150 °C	ISO 306/A50
RTI Elec			UL 746B
0.06 in (1.5 mm)	176 °F	80.0 °C	
0.12 in (3.0 mm)	176 °F	80.0 °C	
RTI Imp			UL 746B
0.06 in (1.5 mm)	176 °F	80.0 °C	
0.12 in (3.0 mm)	176 °F	80.0 °C	
RTI Str			UL 746B
0.06 in (1.5 mm)	176 °F	80.0 °C	
0.12 in (3.0 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
High Amp Arc Ignition (HAI)			UL 746A
0.06 in (1.5 mm)	PLC 0	PLC 0	
0.12 in (3.0 mm)	PLC 0	PLC 0	
Hot-wire Ignition (HWI)			UL 746A
0.06 in (1.5 mm)	PLC 2	PLC 2	
0.12 in (3.0 mm)	PLC 1	PLC 1	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
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 (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1560 °F	850 °C	
0.12 in (3.0 mm)	1560 °F	850 °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

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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