

Technical Data Sheet

Perlex R5563 NATURAL



Polycarbonate

Product Description

Perlex R5563 NATURAL is a Polycarbonate material. Features include: UV Resistant.

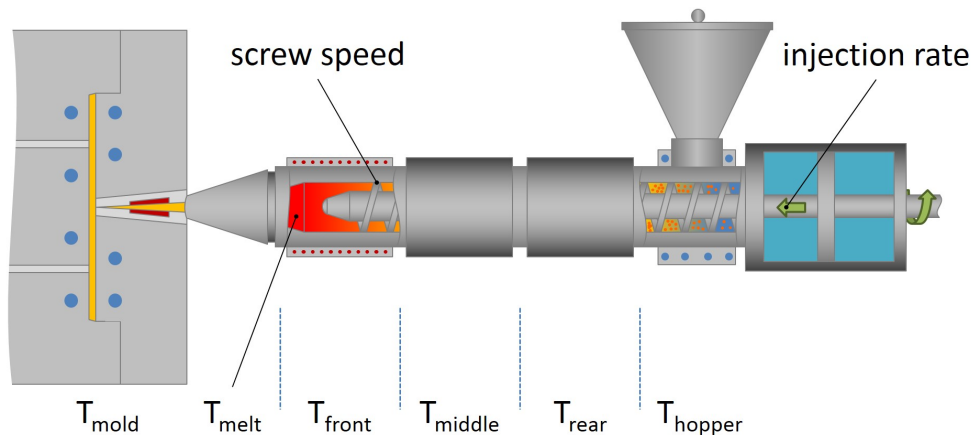
Regulatory Status

For regulatory compliance information, see *Perlex* R5563 NATURAL [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Attribute	UV Resistant
Appearance	Opaque
Additive	Flame Retardant; UV Stabilizer
Application	Electrical Parts

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (300 °C/1.2 kg)	12	g/10 min	ISO 1133
Density	1.2	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield	60	MPa	ISO 527-2
Tensile Strain at Break	>50	%	ISO 527-2
Flexural Modulus	2400	MPa	ISO 178
Tensile Strain at Yield	5	%	ISO 527-2
Tensile Stress at Break	48	MPa	ISO 527-2
Tensile Modulus	2300	MPa	ISO 527-1
Flexural Stress	95	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C)	47	kJ/m ²	ISO 179
(-30 °C)	11	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(-30 °C)	No Break		ISO 179
(23 °C)	No Break		ISO 179
Notched Izod Impact (Area), (23 °C)	45.0	kJ/m ²	ASTM D256
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	145	°C	ISO 306
(A (10N), 50 °C/h)	150	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa)	135	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa)	130	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B
RTI Imp			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B
RTI Str			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	175	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(2.00 mm)	0.0	mm/min	ISO 3795
(2.00 mm)	0.0	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	850	°C	IEC 60695-2-13
(3.0 mm)	850	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94



Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature	110 to 120	°C
Processing (Melt) Temp	270 to 310	°C

Notes

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

Processing notes

Melt contacting surfaces should be made of a high quality, corrosive resistant steel. Positive experiences have been made with steel qualities containing > 12% chromium.

Avoid processing at very barrel high temperatures or above the recommended melt temperature range as this can increase risk of deposit onto the tool surfaces. Avoid long residence times. At start and end of production, it is recommended to purge clean with non-flame retardant polymer or a polyolefin.

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.

Company Information

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

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