

Fortron® 1130L4

Polyphenylene Sulfide
Celanese Corporation

PROSPECTOR®

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Technical Data

Product Description

Fortron 1130L4 is a 30% glass-reinforced PPS that has excellent heat and chemical resistance. It is inherently flame-retardant and exhibits high hardness and a good balance of strength and stiffness. Especially used for thin walled parts requiring long flow lengths. This grade also exhibits excellent weldability in secondary operations due to its low filler content.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet - ASTM (English) • Technical Datasheet - ISO (English)
UL Yellow Card ²	• E107854-237732
Search for UL Yellow Card	• Celanese Corporation • Fortron®
Availability	• Africa & Middle East • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Chemical Resistant • Flame Retardant • Good Stiffness • Good Strength • High Hardness • High Heat Resistance • Weldable
Uses	• Thin-walled Parts
RoHS Compliance	• Contact Manufacturer

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity			
--	1.60	1.60 g/cm ³	ASTM D792
--	1.58 g/cm ³	1.58 g/cm ³	ISO 1183
Specific Volume	17.6 in ³ /lb	0.636 cm ³ /g	ASTM D792
Molding Shrinkage			
Flow	3.0E-3 to 5.0E-3 in/in	0.30 to 0.50 %	ASTM D955
Across Flow	6.0E-3 to 9.0E-3 in/in	0.60 to 0.90 %	ASTM D955
Across Flow	0.60 to 0.90 %	0.60 to 0.90 %	ISO 294-4
Flow	0.30 to 0.50 %	0.30 to 0.50 %	ISO 294-4
Water Absorption (Saturation, 73°F (23°C))	0.020 %	0.020 %	ISO 62

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.74E+6 psi	12000 MPa	ISO 527-2/1A/1
Tensile Strength			
Break, 73°F (23°C)	25000 psi	172 MPa	ASTM D638
Break	24700 psi	170 MPa	ISO 527-2/1A/5
Tensile Elongation			
Break, 73°F (23°C)	1.9 %	1.9 %	ASTM D638
Break	1.9 %	1.9 %	ISO 527-2/1A/5
Flexural Modulus (73°F (23°C))	1.60E+6 psi	11000 MPa	ISO 178
Flexural Stress ⁴	37700 psi	260 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	
73°F (23°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	16 ft·lb/in ²	34 kJ/m ²	
73°F (23°C)	16 ft·lb/in ²	34 kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-22°F (-30°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	
73°F (23°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	



Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Unnotched Izod Impact Strength (73°F (23°C))	14 ft·lb/in ²	30 kJ/m ²	ISO 180/1U
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	100	100	ASTM D785 ISO 2039-2
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	536 °F	280 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	511 °F	266 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	491 °F	255 °C	ISO 75-2/A
Glass Transition Temperature ⁵	194 °F	90.0 °C	ISO 11357-2
CLTE			ISO 11359-2
Flow	1.6E-5 in/in/°F	2.9E-5 cm/cm/°C	
Transverse	2.9E-5 in/in/°F	5.2E-5 cm/cm/°C	
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+16 ohms·cm	1.0E+16 ohms·cm	ASTM D257
--	> 1.0E+15 ohms·cm	> 1.0E+15 ohms·cm	IEC 60093
Dissipation Factor			ASTM D150
1 kHz	1.0E-3	1.0E-3	
1 MHz	1.0E-3	1.0E-3	
Arc Resistance	127 sec	127 sec	ASTM D495
Comparative Tracking Index	150 V	150 V	ASTM D3638
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.031 in (0.8 mm)	V-0	V-0	
0.06 in (1.5 mm)	V-0	V-0	
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Specimen Thickness - Shrinkage	0.13 in	3.18 mm	Internal Method
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	266 to 284 °F	130 to 140 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	0.020 %	
Hopper Temperature	68 to 86 °F	20 to 30 °C	
Rear Temperature	554 to 572 °F	290 to 300 °C	
Middle Temperature	590 to 608 °F	310 to 320 °C	
Front Temperature	626 to 644 °F	330 to 340 °C	
Nozzle Temperature	590 to 626 °F	310 to 330 °C	
Processing (Melt) Temp	626 to 644 °F	330 to 340 °C	
Mold Temperature	284 to 320 °F	140 to 160 °C	
Injection Pressure	7250 to 14500 psi	50.0 to 100 MPa	
Injection Rate	Fast	Fast	
Holding Pressure	4350 to 10200 psi	30.0 to 70.0 MPa	
Back Pressure	0.00 to 435 psi	0.00 to 3.00 MPa	

Injection Notes

Manifold Temperature: 330 to 340°C
Zone 4 Temperature: 330 to 340°C
Feed Temperature: 60 to 80°C



Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ Break

⁵ 10°C/min



Where to Buy

Supplier

Celanese Corporation

Florence, KY USA

Telephone: 800-833-4882

Web: <http://www.celanese.com/engineered-materials>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

Availability: China, Hong Kong

Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

Channel Prime Alliance

Telephone: 800-247-8038

Web: <http://www.channelpa.com/>

Availability: North America

Entec Polymers

Telephone: 800-375-5440

Web: <http://www.entecpolymers.com/>

Availability: North America

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

