

Lumiloy® GP2300

Polyphenylene Ether

LG Chem Ltd.

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

General Purpose

Application

Electrical & Electronic Parts, Water pump Housing, Impaellers

Material Type

mPPE/GF

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E248280-101157615 • E515076-104348484 • E67171-100786485
Search for UL Yellow Card	• LG Chem Ltd.
Availability	• Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber
Uses	• Electrical/Electronic Applications • General Purpose • Housings

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.28 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	9.0 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	9.5 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70 %	ASTM D955

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		
Yield ³	127 MPa	ASTM D638
Yield	118 MPa	ISO 527-2/5
Tensile Elongation		
Break ³	3.0 %	ASTM D638
Break	3.0 %	ISO 527-2/5
Flexural Modulus		
-- ⁴	127 MPa	ASTM D790
-- ⁵	5800 MPa	ISO 178
Flexural Strength		
-- ⁴	765 MPa	ASTM D790
-- ⁵	150 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
-30°C	12 kJ/m ²	
23°C	13 kJ/m ²	
Notched Izod Impact		
23°C, 3.20 mm	130 J/m	ASTM D256
-30°C	13 kJ/m ²	ISO 180
23°C	13 kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	33 kJ/m ²	ISO 180

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	119	ISO 2039-2



Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	147 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	139 °C	ASTM D648
1.8 MPa, Unannealed	141 °C	ISO 75-2/Af
Vicat Softening Temperature	148 °C	ASTM D1525 ⁶
CLTE		ASTM D696
Flow : -30 to 130°C	1.7E-5 cm/cm/°C	
Transverse : -30 to 130°C	7.0E-5 cm/cm/°C	
RTI Elec	65.0 °C	UL 746B
RTI Imp	65.0 °C	UL 746B
RTI Str	65.0 °C	UL 746B
Electrical	Nominal Value Unit	Test Method
Volume Resistivity (23°C)	1.0E+11 ohms·cm	ASTM D257
Dielectric Strength (23°C, 1.00 mm)	36 kV/mm	ASTM D149
Comparative Tracking Index (CTI) ⁷	PLC 4	UL 746
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
0.8 mm	HB	
1.5 mm	HB	
3.0 mm	HB	
Injection	Nominal Value Unit	
Drying Temperature	90 to 100 °C	
Drying Time	4.0 to 5.0 hr	
Suggested Max Moisture	0.020 %	
Rear Temperature	260 to 300 °C	
Middle Temperature	270 to 310 °C	
Front Temperature	270 to 310 °C	
Nozzle Temperature	270 to 310 °C	
Processing (Melt) Temp	280 to 320 °C	
Mold Temperature	70 to 110 °C	

Notes

¹ 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.

² Typical properties: these are not to be construed as specifications.

³ 5.0 mm/min

⁴ 1.3 mm/min

⁵ 2.0 mm/min

⁶ Rate B (120°C/h), Loading 2 (50 N)

⁷ Solution A



Where to Buy

Supplier**LG Chem Ltd.**

Englewood Cliffs, NJ USA

Telephone: 201-816-2302**Web:** <http://www.chemwide.com/>

Distributor**Biesterfeld***Biesterfeld is a Pan European distribution company. Contact Biesterfeld for availability of individual products by country.***Telephone:** +49-40-32008-0**Web:** <http://www.biesterfeld-plastic.com/>**Availability:** Algeria, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, Turkey**Channel Prime Alliance****Telephone:** 800-247-8038**Web:** <http://www.channelpa.com/>**Availability:** North America**Chase Plastic Services, Inc.***Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>***Telephone:** 800-232-4273**Web:** <http://www.chaseplastics.com/>**Availability:** North America**Conventus Polymers****Telephone:** 973-343-7669**Web:** <http://www.conventuspolymers.com/>**Availability:** North America**Resin Resource, Inc.****Telephone:** 877-652-3431**Web:** <http://www.resinresourceinc.com/>**Availability:** North America**SNETOR Distribution***SNETOR Distribution is a Pan European distribution company. Contact SNETOR for availability of individual products by country.***Telephone:** +33-1-4904-8888**Web:** <http://www.snetor.com/>**Availability:** France