

# ULTEM™ Resin 2300 - Europe

Polyether Imide  
SABIC

PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

30% Glass fiber filled, standard flow Polyetherimide (Tg 217°C). ECO Conforming, UL94 V0 and 5VA listing. NSF 51 listing, WRAS certification, KTW certification in recognized colors.

### General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Uses	<ul style="list-style-type: none"><li>• Aerospace Applications</li><li>• Appliances</li><li>• Automotive Applications</li><li>• Automotive Exterior Parts</li><li>• Automotive Under the Hood</li><li>• Construction Applications</li><li>• Electrical/Electronic Applications</li><li>• Electronic Displays</li><li>• Fluid Handling</li><li>• Lighting Applications</li><li>• Medical/Healthcare Applications</li><li>• Oil/Gas Applications</li><li>• Pharmaceuticals</li><li>• Rail Applications</li></ul>
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding
Also Available In	• Asia Pacific • Latin America • North America

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.51 g/cm <sup>3</sup>	1.51 g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	0.366 in <sup>3</sup> /10min	6.00 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow <sup>2</sup>	2.0E-3 to 4.0E-3 in/in	0.20 to 0.40 %	Internal Method
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.90 %	0.90 %	
Equilibrium, 73°F (23°C), 50% RH	0.50 %	0.50 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.38E+6 psi	9500 MPa	ISO 527-2/1
Tensile Stress (Break)	23900 psi	165 MPa	ISO 527-2/5
Tensile Strain (Break)	2.0 %	2.0 %	ISO 527-2/5
Flexural Modulus <sup>3</sup>	1.23E+6 psi	8500 MPa	ISO 178
Flexural Stress <sup>3,4</sup>	32600 psi	225 MPa	ISO 178
Taber Abrasion Resistance			Internal Method
1000 Cycles, 1000 g, CS-17 Wheel	20.0 mg	20.0 mg	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	4.8 ft·lb/in <sup>2</sup>	10 kJ/m <sup>2</sup>	ISO 179/2C
Charpy Unnotched Impact Strength <sup>5</sup>			ISO 179/1eU
-22°F (-30°C)	19 ft·lb/in <sup>2</sup>	40 kJ/m <sup>2</sup>	
73°F (23°C)	19 ft·lb/in <sup>2</sup>	40 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength <sup>6</sup>			ISO 180/1U
-22°F (-30°C)	19 ft·lb/in <sup>2</sup>	40 kJ/m <sup>2</sup>	
73°F (23°C)	19 ft·lb/in <sup>2</sup>	40 kJ/m <sup>2</sup>	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	23900 psi	165 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature <sup>7</sup>			
66 psi (0.45 MPa), Unannealed, 0.157 in (4.00 mm), 3.94 in (100 mm) Span	419 °F	215 °C	ISO 75-2/Be
264 psi (1.8 MPa), Unannealed, 0.157 in (4.00 mm), 3.94 in (100 mm) Span	410 °F	210 °C	ISO 75-2/Ae
Vicat Softening Temperature			
--	437 °F	225 °C	ISO 306/A50
--	415 °F	213 °C	ISO 306/B50
--	428 °F	220 °C	ISO 306/B120



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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Pressure Test 253 to 261°F (123 to 127°C)	Pass	Pass	IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 73 to 302°F (23 to 150°C)	1.1E-5 in/in/°F	2.0E-5 cm/cm/°C	
Transverse : 73 to 302°F (23 to 150°C)	3.3E-5 in/in/°F	6.0E-5 cm/cm/°C	
Thermal Conductivity	2.0 Btu·in/hr/ft²/°F	0.29 W/m/K	ISO 8302
RTI Elec	356 °F	180 °C	UL 746
RTI Imp	338 °F	170 °C	UL 746
RTI Str	356 °F	180 °C	UL 746
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+15 ohms·cm	1.0E+15 ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
0.0315 in (0.800 mm), in Oil	890 V/mil	35 kV/mm	
0.0630 in (1.60 mm), in Oil	660 V/mil	26 kV/mm	
0.126 in (3.20 mm), in Oil	380 V/mil	15 kV/mm	
Relative Permittivity			IEC 60250
50 Hz	3.30	3.30	
60 Hz	3.30	3.30	
1 MHz	3.40	3.40	
Dissipation Factor			IEC 60250
50 Hz	1.6E-3	1.6E-3	
60 Hz	1.6E-3	1.6E-3	
1 MHz	2.3E-3	2.3E-3	
2.45 GHz	5.3E-3	5.3E-3	
Comparative Tracking Index			IEC 60112
--	150 V	150 V	
Solution B	100 V	100 V	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0098 in (0.25 mm)	V-0	V-0	
0.05 in (1.2 mm)	5VA	5VA	
Glow Wire Flammability Index			IEC 60695-2-12
0.13 in (3.2 mm)	1760 °F	960 °C	
Oxygen Index	48 %	48 %	ISO 4589-2
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	302 °F	150 °C	
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr	
Suggested Max Moisture	0.020 %	0.020 %	
Hopper Temperature	176 to 248 °F	80 to 120 °C	
Rear Temperature	662 to 752 °F	350 to 400 °C	
Middle Temperature	680 to 770 °F	360 to 410 °C	
Front Temperature	698 to 788 °F	370 to 420 °C	
Nozzle Temperature	680 to 770 °F	360 to 410 °C	
Processing (Melt) Temp	698 to 770 °F	370 to 410 °C	
Mold Temperature	284 to 356 °F	140 to 180 °C	



**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Tensile Bar

<sup>3</sup> 0.079 in/min (2.0 mm/min)

<sup>4</sup> at Break

<sup>5</sup> 80\*10\*4 sp=62mm

<sup>6</sup> 80\*10\*4 mm

<sup>7</sup> 120\*10\*4 mm



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### Where to Buy

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#### Supplier

**SABIC**

**Web:** <http://www.sabic.com/>

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#### Distributor

##### **Erteco Rubber & Plastics AB**

**Telephone:** +46-8-587-517-00

**Web:** <http://www.erteco.se/>

**Availability:** Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden

##### **POLY MIX**

**Telephone:** +33-3-8920-1380

**Web:** <http://www.polymix.eu/>

**Availability:** France

##### **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

##### **Ultrapolymers**

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

**Telephone:** +32-11-57-95-57

**Web:** <http://www.ultrapolymers.com/>

**Availability:** Belgium, Netherlands, South Africa

