

# LEXAN™ FR Resin 923A - Europe

Polycarbonate  
SABIC

**PROSPECTOR®**

www.ulprospector.com

## Technical Data

### Product Description

LEXAN™ 923A resin is a 15 MFR polycarbonate. UV stabilized. Mold release. Flame retardant, UL94 V0 rated. UL746C f1 rated. Available in transparent and translucent colors.

### General

Material Status	• Commercial: Active
UL Yellow Card <sup>1</sup>	• E45329-236662 • E45329-236668
Search for UL Yellow Card	• SABIC
Availability	• Europe
Uses	<ul style="list-style-type: none"> <li>• Aerospace Applications</li> <li>• Appliances</li> <li>• Automotive Exterior Parts</li> <li>• Construction Applications</li> <li>• Electric Vehicle Applications</li> <li>• Electrical Parts</li> <li>• Electrical/Electronic Applications</li> <li>• Electronic Displays</li> <li>• Lawn and Garden Equipment</li> <li>• Lighting Applications</li> <li>• Medical/Healthcare Applications</li> <li>• Military/Defense Applications</li> <li>• Outdoor Applications</li> <li>• Personal Care</li> <li>• Water Management</li> </ul>
Also Available In	<ul style="list-style-type: none"> <li>• Asia Pacific</li> <li>• Latin America</li> <li>• North America</li> </ul>

### Physical

	Nominal Value Unit	Test Method
Density	1.20 g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	12 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow <sup>3</sup>	0.50 to 0.70 %	Internal Method
Water Absorption		ISO 62
Saturation, 23°C	0.35 %	
Equilibrium, 23°C, 50% RH	0.15 %	

### Mechanical

	Nominal Value Unit	Test Method
Tensile Modulus	2350 MPa	ISO 527-1/1
Tensile Stress		ISO 527-2/50
Yield	63.0 MPa	
Break	60.0 MPa	
Tensile Strain		ISO 527-2/50
Yield	6.0 %	
Break	85 %	
Flexural Modulus <sup>4</sup>	2300 MPa	ISO 178
Flexural Stress <sup>4, 5</sup>	90.0 MPa	ISO 178
Taber Abrasion Resistance		Internal Method
1000 Cycles, 1000 g, CS-17 Wheel	10.0 mg	

### Impact

	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		
-30°C <sup>6</sup>	14 kJ/m <sup>2</sup>	ISO 179/1eA
23°C <sup>6</sup>	73 kJ/m <sup>2</sup>	ISO 179/1eA
23°C	30 kJ/m <sup>2</sup>	ISO 179/2C
Charpy Unnotched Impact Strength <sup>6</sup>		ISO 179/1eU
-30°C	No Break	
23°C	No Break	
Notched Izod Impact Strength <sup>7</sup>		ISO 180/1A
-30°C	12 kJ/m <sup>2</sup>	
23°C	70 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength <sup>7</sup>		ISO 180/1U
-30°C	No Break	
23°C	No Break	



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Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	118	ISO 2039-2
Ball Indentation Hardness (H 358/30)	95.0 MPa	ISO 2039-1
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load <sup>8</sup>		
0.45 MPa, Unannealed, 4.00 mm, 100 mm Span	135 °C	ISO 75-2/Be
1.8 MPa, Unannealed, 4.00 mm, 100 mm Span	124 °C	ISO 75-2/Ae
Vicat Softening Temperature		
--	142 °C	ISO 306/B120
--	141 °C	ISO 306/B50
Ball Pressure Test (123 to 127°C)	Pass	IEC 60695-10-2
CLTE - Flow (23 to 80°C)	7.0E-5 cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20 W/m/K	ISO 8302
RTI Elec	130 °C	UL 746B
RTI Imp	120 °C	UL 746B
RTI Str	130 °C	UL 746B
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+15 ohms·cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	17 kV/mm	IEC 60243-1
Relative Permittivity		IEC 60250
50 Hz	2.70	
60 Hz	2.70	
1 MHz	2.70	
Dissipation Factor		IEC 60250
50 Hz	1.0E-3	
60 Hz	1.0E-3	
1 MHz	0.010	
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.5 mm	V-2	
3.0 mm	V-0	
Glow Wire Flammability Index		IEC 60695-2-12
1.0 mm	850 °C	
1.6 mm	960 °C	
Oxygen Index	35 %	ISO 4589-2
Optical	Nominal Value Unit	Test Method
Refractive Index	1.586	ISO 489
Light Transmittance (2540 µm)	85.0 %	ASTM D1003
Injection	Nominal Value Unit	
Drying Temperature	120 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	
Hopper Temperature	60 to 80 °C	
Rear Temperature	260 to 280 °C	
Middle Temperature	270 to 290 °C	
Front Temperature	280 to 300 °C	
Nozzle Temperature	270 to 290 °C	
Processing (Melt) Temp	280 to 300 °C	
Mold Temperature	80 to 100 °C	



**Notes**

<sup>1</sup> 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.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> Tensile Bar

<sup>4</sup> 2.0 mm/min

<sup>5</sup> at Yield

<sup>6</sup> 80\*10\*3 sp=62mm

<sup>7</sup> 80\*10\*3 mm

<sup>8</sup> 120\*10\*4 mm



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## Where to Buy

### Supplier

**SABIC**

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

### Distributor

#### **3Polymer (Guangzhou) Chemical Technology Co., Ltd.**

Telephone: +86-20-3466-7988

Web: <http://3polymer.com>

Availability: China

#### **AECTRA**

Telephone: +33-4-72-54-36-42

Web: <https://www.aectra.fr/>

Availability: Bulgaria, Romania

#### **AGI-Augusto Guimarães & Irmão**

Telephone: +351-22753-7400

Web: <https://www.agi.pt/en/>

Availability: Portugal

#### **GRÄSSLIN**

Telephone: +49-7721-4040-261

Web: <https://www.graesslin-kunststoffe.de>

Availability: Germany

#### **Guzmán Polymers**

Telephone: +34-963-992-400

Web: <https://www.guzmanglobal.com/en/productos/plastics/>

Availability: Italy, Spain, Turkey

#### **Lenorplastics**

Telephone: +41-61-706-11-11

Web: <https://www.lenorplastics.ch>

Availability: Switzerland

#### **Plastoplan**

Telephone: +43-1-25040-0

Web: <https://www.plastoplan.com/>

Availability: Austria, Czech Republic, Hungary, Slovakia

#### **POLYMIX**

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

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

