

# LEXAN™ VISUALFX™ Resin FXD173R

Polycarbonate  
SABIC

**PROSPECTOR®**

www.ulprospector.com

## Technical Data

### Product Description

LEXAN FXD173R is a UV stabilized translucent high flow grade for light diffusion special effects. The color package may affect performance.

### General

Material Status	• Commercial: Active		
UL Yellow Card <sup>1</sup>	<ul style="list-style-type: none"> <li>• E121562-100108309</li> <li>• E207780-100791802</li> <li>• E45329-104344114</li> </ul>		
Search for UL Yellow Card	• SABIC		
Availability	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>• Europe</li> <li>• Latin America</li> </ul>	<ul style="list-style-type: none"> <li>• North America</li> </ul>
Features	<ul style="list-style-type: none"> <li>• High Flow</li> </ul>	<ul style="list-style-type: none"> <li>• Pleasing Surface Appearance</li> </ul>	<ul style="list-style-type: none"> <li>• UV Resistant</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Automotive Lighting</li> <li>• Electrical Parts</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical/Electronic Applications</li> <li>• Electronic Displays</li> </ul>	<ul style="list-style-type: none"> <li>• Lighting Applications</li> </ul>
Processing Method	• Injection Molding		

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)	26 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	50.0 MPa	
Tensile Strain		ISO 527-2/50
Yield	6.0 %	
Break	70 %	
Flexural Modulus <sup>4</sup>	2300 MPa	ISO 178
Flexural Stress <sup>4,5</sup>	90.0 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength <sup>6</sup>		ISO 179/1eA
-30°C	12 kJ/m <sup>2</sup>	
23°C	60 kJ/m <sup>2</sup>	
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	11 kJ/m <sup>2</sup>	
23°C	60 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength <sup>7</sup>		ISO 180/1U
-30°C	No Break	
23°C	No Break	

Hardness	Nominal Value Unit	Test Method
Ball Indentation Hardness (H 358/30)	95.0 MPa	ISO 2039-1



**LEXAN™ VISUALFX™ Resin FXD173R**

Polycarbonate

**SABIC****PROSPECTOR®**

www.ulprospector.com

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load <sup>8</sup>		
0.45 MPa, Unannealed, 4.00 mm, 100 mm Span	133 °C	ISO 75-2/Be
1.8 MPa, Unannealed, 4.00 mm, 100 mm Span	121 °C	ISO 75-2/Ae
Vicat Softening Temperature		
--	140 °C	ISO 306/B120
--	139 °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
RTI Elec	130 °C	UL 746B
RTI Imp	130 °C	UL 746B
RTI Str	130 °C	UL 746B
Electrical	Nominal Value Unit	Test Method
Comparative Tracking Index <sup>9</sup>	275 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating (> 1.2 mm)	V-2	UL 94
Glow Wire Flammability Index (1.0 mm)	875 °C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.0 mm)	900 °C	IEC 60695-2-13
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

<sup>9</sup> Value shown here is based on internal measurement.



---

**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

**Amco Polymers**

Telephone: 800-262-6685

Web: <http://www.amcopolymers.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>**[www.chaseplastics.com/contact/locations](http://www.chaseplastics.com/contact/locations)*

Telephone: 800-232-4273

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

Availability: North America

**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

**Nexeo Plastics***Nexeo Plastics is leading global resin distributor with the technical resources you need to overcome material challenges. Visit us on the web at**[www.nexeoplastics.com](http://www.nexeoplastics.com)*

Telephone: 833-446-3936

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

Availability: North America

**Plastoplan**

Telephone: +43-1-25040-0

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

Availability: Austria, Czech Republic, Hungary, Slovakia

