

Description

Lexan* DSP 155 sheet is an opaque sheet material extruded from SABIC Innovative Plastics recycled polycarbonate resins. Lexan DSP 155 sheet material is suitable for a wide range of flat or vacuum formed applications such as material handling trays or pallets. Lexan DSP 155 sheets provide: High impact resistance, optimal cost/performance ratio, excellent formability, and recyclability.

Typical Property Values ♦

| Property | Test Method | Unit | Value |
|-----------------------------------|--------------|-------------------|--------------------|
| Physical | | | |
| Density | ASTM 1183 | g/cm ³ | 1.20 |
| Mechanical | | | |
| Flexural modulus | ASTM D790 | MPa | 2500 |
| Gardner Impact | SABIC Method | | |
| 23°C | | J | >30 |
| -20°C | | J | >30 |
| Thermal | | | |
| Vicat Softening Temp, Rate B/ 120 | ISO 306 | °C | 135 |
| DTUL, 1.82 MPa | ISO 75 | °C | 125 |
| Thermal Expansion | DIN 53752 | m/m°C | 7×10 ⁻⁵ |
| Flammability | | | |
| Oxygen Index | ISO 4589 | % | 25 |
| Electrical | | | |
| Volume Resistivity, 23 °C | IEC 93 | Ohm.m | 10 ¹⁵ |
| Surface Resistivity | IEC 93 | Ohm | 10 ¹⁵ |

♦ These property values have been derived from Lexan*resin data for the material used to produce this sheet product.

* Trademarks of SABIC Innovative Plastics IP BV

Processing

Lexan* DSP 155 sheet is an excellent candidate for thermoforming applications. It can offer high, deep draw ratios, equal wall thickness distribution, and it can be formed into complex shapes using standard thermoforming equipment. Sandwich type heating systems give the best results. Lexan DSP 155 sheet has a forming temperature range of 185 - 205°C. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of 0.6 - 0.8% taken into account.

Chemical Resistance

Lexan DSP 155 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. In applications where the Lexan DSP 155 sheet will come into contact with aggressive chemicals, specific (application related) testing is always advised. Effective painting systems can improve chemical resistance.

Pre-drying

It is important to ensure that Lexan DSP 155 sheets are free of moisture prior to thermoforming. A hot air circulating oven set at 120°C is recommended. Pre-drying times vary from 3-24 hours, depending on sheet thickness

Assembling

Parts made from Lexan DSP 155 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Innovative Plastics, Specialty Film & Sheet for advice on specific applications.

Further information and advice is available on request.

Painting

Lexan DSP 155 sheet is an excellent candidate for use with a wide variety of modern decoration techniques. A list of approved paint systems and suppliers is available upon request.



* Trademark of SABIC Innovative Plastics IP BV

Americas:
SABIC Innovative Plastics
Specialty Film & Sheet
One Plastics Avenue
Pittsfield, MA 01201
USA
Tel. (1) (413) 448 5400
Fax. (1) (413) 448 7506
Toll free: 1-800 451 3147

Europe:
SABIC Innovative Plastics
Specialty Film & Sheet
Plasticslaan 1
NL - 4612 PX Bergen op Zoom
The Netherlands
Tel. (31) (164) 292911
Fax. (31) (164) 293272

Pacific:
SABIC Innovative Plastics
Specialty Film & Sheet
1468 Nanjin Road (W)
26th Floor, United Plaza
200040 Shanghai, China
Tel. (86) 21 3222 4500
Fax. (86) 21 6289 8998

THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com> AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of Sabic Holding Europe BV

* Trademark of SABIC Innovative Plastics IP BV