

Description

Lexan DMX1HDA3 is polycarbonate film with improved scratch resistance, excellent clarity, high heat resistance and matt textured surface finish.

Typical Property Values◆

| Property | ASTM Test Method | Units (USCS) | Value | ISO Test Method | Units (SI) | Value |
|---|------------------|----------------------|----------------------|-----------------|-------------------|--------------------|
| Physical | | | | | | |
| Density | D792 | slug/ft ³ | 2.29 | 1183 | kg/m ³ | 1193 |
| Pencil Hardness (500g) | D3363 | - | 1H | 15184 | - | 1H |
| Surface Roughness (RMS) | D5946 | - | 55 | - | - | 55 |
| Water Absorption, 23°C 50% RH, 24hrs | D570 | % change | 0.32 | 62 | % change | 0.32 |
| Mechanical | | | | | | |
| Tensile Strength @ Yield | D882 | psi | 8500 | 527 | MPa | 58.6 |
| Ultimate | D882 | psi | 8100 | 527 | MPa | 55.8 |
| Tensile Modulus | D882 | psi | 290000 | 527 | MPa | 2000 |
| Tensile Elongation @ Break | D882 | % | 10 | 527 | % | 10 |
| Tear Strength Initiation 0.010" | D1004 | g/mil | 575 | NA | N/mm | 220 |
| Propagation 0.010" | D1922 | g/mil | 37 | NA | N/mm | 14 |
| Puncture Resistance (Dynatup) (Total Energy) | D3763 | ft-lb/mm | 7.2 | | J/mm | 9.7 |
| Thermal | | | | | | |
| Coeff. of Thermal Expansion CTE 0-80 deg C, in flow | E831 | 1/°F | 4x4x10 ⁻⁵ | 11359 | 1/°C | 8x10 ⁻⁵ |
| CTE 0-80 deg C, cross flow | E831 | 1/°F | 4x4x10 ⁻⁵ | 11359 | 1/°C | 8x10 ⁻⁵ |
| Vicat Softening Temp, Rate B/50 1 st Surface- hard side | D1525 | °F | 282 | 306 | °C | 138 |
| Vicat 2 nd Surface – back side | D1525 | °F | 309 | 306 | °C | 154 |
| Optical | | | | | | |
| Refractive Index @ 77°F 1 st Surface | D542 | - | 1.584 | 489 | - | 1.584 |
| Refractive Index @ 77°F 2 nd Surface D542 | D542 | - | 1.586 | 489 | - | 1.586 |
| Light Transmission | D1003 | % | 87 | - | - | 87 |
| Yellowness Index | D1925 | - | 0.3 | - | - | 0.3 |
| Gloss @ 85° | D523-60 | - | 5.5 | 2813 | - | 5.5 |

Manufacturing Specifications

| Nominal Gauge Ranges | Min/Max Limit of Nominal |
|-------------------------------------|--------------------------|
| 0.007" (0.175 mm) | +/- 10% |
| 0.010"-0.015" (0.250 mm-0.375 mm) | +/- 5% |
| 0.020" – 0.030" (0.500 mm-0.750 mm) | +/- 3% |

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics representative or the SABIC Innovative Plastics Quality Services Department. Reported Values are Based on 0.010" (0.250 mm) Thickness unless otherwise noted.

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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
1266 Nanjin Road (W)
Plaza 66, 17th Floor
200040 Shanghai, China
Tel. (86) 21 62881088
Fax. (86) 21 62880818

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