

Lexan* 8B36 Film

Product Datasheet

Description

Lexan 8B36 film is a one side suede, one side matt transparent polycarbonate film. It offers high temperature resistance, excellent dimensional stability and good printability without pre- treatment making it very suitable for multi-layer printing. The heavy suede texture offers mar resistance and the product can be used over light-emitting devices. Its low gloss level reduces glare in automobile interiors and offices.

Typical Property Values ♦

| Property | ASTM Test Method | Units (USCS) | Value | ISO Test Method | Units (SI) | Value |
|---|-----------------------|-------------------------------|---------|-----------------|-------------------------|---------|
| Mechanical | | | | | | |
| Tensile Strength @ Yield | ASTM D882 | psi | 8500 | ISO 527 | MPa | 62 |
| Ultimate | ASTM D882 | psi | 9000 | ISO 527 | MPa | 65 |
| Tensile Modulus | ASTM D882 | psi | 300000 | ISO 527 | MPa | 2506 |
| Tensile Elongation at Break | ASTM D882 | % | 100-160 | ISO 527 | % | 100-154 |
| Gardner Impact Strength at 0.03" (0.75 mm) | ASTM D3029 | ft-lb | 23 | ISO 6603-1 | J | 31 |
| Tear Strength | | | | | | |
| Initiation | ASTM D1004 | lb/mil | 1.4-1.8 | | kN/m | 245 |
| Propogation | ASTM D1922 | g/mil | 30-55 | | kN/m | 10-20 |
| Puncture Resistance (Dynatup) | ASTM D3763 | ft-lb | 9 | | J | 12 |
| Fold Endurance (MIT) | | | | | | |
| 0.010" (0.25 mm) | ASTM D2176-69 | double folds | 60 | | | |
| 0.020" (0.50 mm) | ASTM D2176-69 | double folds | 20 | | | |
| Thermal | | | | | | |
| Coefficient of Thermal Conductivity | ASTM D5470 | Btu/hr/ft ² /°F/in | 1.35 | | W/m ² K | 0.2 |
| Coefficient of Thermal Expansion | ASTM E831 | (x10 ⁻⁵ /°F) | 3.2 | ISO 11359 | (x10 ⁻⁵ /°C) | 5.8 |
| Specific Heat @40°F (4°C) | ASTM E1269 | Btu/lb/°F | 0.3 | | KJ/Kg-°C | 1.25 |
| Glass Transition Temperature | ASTM D3417 / D3418 | °F | 307 | ISO 11357 | °C | 153 |
| Vicat Softening Temperature, B | ASTM 1525-00 modified | °F | 312 | | °C | 160 |
| Heat Deflection Temp. by TMA at 1.8 Mpa | | °F | 290 | ISO 75 Modified | °C | 145 |
| Shrinkage at 302°F (150°C) | ASTM D1204 | % | 1.40 | | % | 1.40 |
| Brittleness Temperature | ASTM D746 | °F | -211 | | °C | -135 |
| Physical | | | | | | |
| Density | ASTM D792 | slug/ft ³ | 2.3 | ISO 1183 | kg/m ³ | 1200 |
| Water Absorption, 24 hrs. | ASTM D570 | % change | 0.35 | ISO 62 | % change | 0.35 |
| Surface Energy(1 st surface/ 2 nd surface) | ASTM D5946-01 | - | 38/32 | | | |
| Surface Tension(1 st surface/ 2 nd surface) | Dyne Pens | Dyne | >44/>44 | | | |
| Optical | | | | | | |
| Refractive Index @77°F (25°C) | ASTM D542A | - | 1.6 | | | |
| Light Transmission | ASTM D1003 | % | 85 | | | |
| Yellowness Index | ASTM D1925 | % | 2 | | | |
| Haze | ASTM D1003 | % | 102 | | | |
| Gloss over Flat Black min/max @ 60° | ASTM D523-60 | - | 4 | ISO 2813 | - | 4 |

Manufacturing Specifications

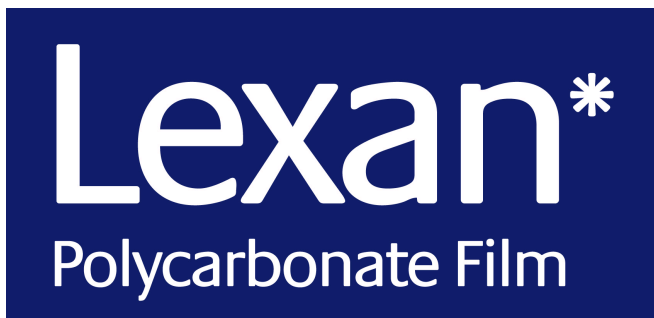
| Nominal Gauge Ranges | Min./Max Limit of Nominal |
|--|---------------------------|
| 0.010-0.015" (0.250-0.375 mm) 0.020" (0.500 mm) | -/+5% -/+3% |

- These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative or the Quality Services Department. Reported values are based on 0.250 mm (0.010") thickness film unless otherwise noted.

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Gloss: (ASTMD 523-60)

| | Angle | Suede | Matte |
|-------------|--------------|--------------|--------------|
| 8B36 | 60° Minimum | 0 | 3 |
| | Maximum | 2 | 12 |



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