

LEXAN™ 9034 SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ 9034 uncoated polycarbonate sheet is the standard grade of LEXAN sheet for transparent protective glazing. High-impact LEXAN 9034 sheet may be an excellent candidate for primary glazing, or on either side of existing glazing for economical protection against breakage or intrusion. A better insulator than glass, LEXAN 9034 sheet may contribute to lower energy costs.

TYPICAL PROPERTY VALUES ◆

| PROPERTY | TEST METHOD | UNITS | VALUE |
|--|-------------|------------------------------------|-------------------------|
| Physical | | | |
| Specific Gravity | ASTM D792 | — | 1.20 |
| Refractive Index @ 77°F | ASTM D542A | — | 1.586 |
| Light Transmission (Average), 1/8" disk | ASTM D1003 | % | 88 |
| Rockwell Hardness | ASTM D785 | — | M70 |
| Abrasion Resistance, Taber Abrader, CS-17 wheel | ASTM D1044 | mg/1,000 cycles | 10 |
| Water Absorption, Equilibrium, 24 hrs | ASTM D570 | % | 0.15 |
| @ 73°F | | | 0.35 |
| @ 212°F | | | 0.58 |
| Mechanical | | | |
| Tensile Strength @ Yield | ASTM D638 | psi | 9,000 |
| @ Ultimate | | | 9,500 |
| Tensile Modulus | ASTM D638 | psi | 345,000 |
| Flexural Strength | ASTM D790 | psi | 13,500 |
| Flexural Modulus | ASTM D790 | psi | 345,000 |
| Flexural Endurance @ 1,800 cycles/min, | | | |
| 73°F, 50% RH | ASTM D671 | psi | 1,000 |
| Compressive Strength | ASTM D695 | psi | 12,500 |
| Compressive Modulus | ASTM D695 | psi | 345,000 |
| Elongation | ASTM D638 | % | 110 |
| Poisson's Ratio | — | — | 0.37 |
| Izod Impact Strength Notched @ 1/8" | ASTM D256A | ft-lbs/in | 12–16 |
| Unnotched @ 1/8" | | | 60 (no failure) |
| Tensile Impact Strength, S-Type Specimen | ASTM 1822 | ft-lbs/in ² | 225–300 |
| Shear Strength @ Yield | ASTM D732 | psi | 6,000 |
| @ Ultimate | | | 10,000 |
| Shear Modulus | ASTM D732 | psi | 114,000 |
| Deformation Under Load @ 4,000 psi @ 73°F | ASTM D621 | % | 0.2 |
| @ 158°F | | | 0.3 |
| Thermal | | | |
| Coefficient of Thermal Expansion | ASTM D696 | in/in/°F | 3.75 x 10 ⁻⁵ |
| Coefficient of Thermal Conductivity | ASTM C177 | Btu • in/hr • ft ² • °F | 1.35 |
| Specific Heat @ 40°C | | cal/gm/°C | 0.30 |
| Heat Deflection Temperature @ 264 psi | ASTM D648 | °F | 270 |
| @ 66 psi | | | 280 |
| Brittle Temperature | ASTM D746 | °F | -211 |
| Relative Thermal Index, Electrical properties | UL746B | °C | 130 |
| Relative Thermal Index, Mechanical properties with impact | UL746B | °C | 125 |
| Relative Thermal Index, Mechanical properties without impact | UL746B | °C | 125 |
| Flammability | | | |
| Horizontal Burn (Flame Spread) AEB | ASTM D635 | in | <1 |

| PROPERTY | TEST METHOD | UNITS | VALUE |
|----------------------------------|-------------|--------|------------------------|
| Electrical | | | |
| Dielectric Constant @ 10 Hz | ASTM D150 | — | 2.96 |
| @ 60 Hz | | | 3.17 |
| Volume Resistivity | ASTM D257 | ohm-cm | 8.2 x 10 ¹⁶ |
| Power Factor @ 60 Hz | ASTM D150 | | 0.0009 |
| @ 1,000,000 Hz | | | 0.010 |
| Arc Resistance | ASTM D495 | sec | |
| Stainless Steel Strip Electrodes | | | 10–11 |
| Tungsten Electrodes | | | 120 |

◆ 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 SABIC Innovative Plastics Quality Services Department.

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CODE COMPLIANCE

Underwriters Laboratories

LEXAN 903x Sheet is listed as a Burglary-Resisting Glazing Material according to UL Standard 972.

UL File Number: E121562

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