



LEXAN™ MARGARD™ MRT SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ MARGARD™ MRT sheet is a transparent, high impact LEXAN polycarbonate sheet with a proprietary abrasion-resistant surface. LEXAN MARGARD MRT sheet meets the performance requirements of ANSI Z26.1, required by the Department of Transportation per FMVSS 205, and UMTA guidelines for flammability for windows and lighting lenses.

TYPICAL PROPERTY VALUES ◆

| PROPERTY | TEST METHOD | UNITS | VALUE |
|--|-------------|----------|------------------------|
| Physical | | | |
| Specific Gravity | ASTM D792 | - | 1.20 |
| Chemical Resistance | ANSI Z26.1 | - | Passes# |
| Mechanical | | | |
| Tensile Strength, Ultimate | ASTM D638 | psi | 9,500 |
| Flexural Strength | ASTM D790 | psi | 13,500 |
| Flexural Endurance @ 1,800 Cycles/Min, 73°F, 50% RH | ASTM D671 | psi | 1,000 |
| Compressive Strength | ASTM D695 | psi | 12,500 |
| Modulus of Elasticity | ASTM D638 | psi | 345,000 |
| Drop Ball Impact Strength‡ @ 73°F | SABIC Test | ft-lbs | >200 |
| @ 32°F | | | >200 |
| @ 0°F | | | >200 |
| Thermal | | | |
| Coefficient of Thermal Expansion | ASTM D696 | in/in/°F | 3.75 x10 ⁻⁵ |
| Heat Deflection Temperature @ 264 psi | ASTM D648 | °F | 260 |
| Flammability | | | |
| Horizontal Burn (Flame Spread) AEB | ASTM D635 | in | <1 |
| Ignition Temperature Flash | ASTM D1929 | °F | 873 |
| Self | | | 1,076 |

◆ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC representative.

Gasoline and kerosene - no tackiness, crazing or loss of transparency for a minimum of 48 hours.

‡ 5-lb steel ball dropped from a height of 40 feet

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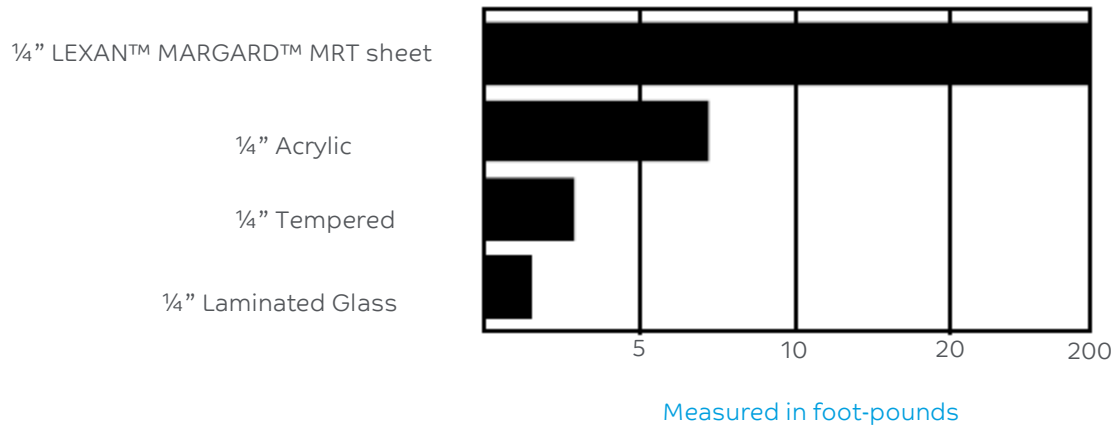
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ABRASION RESISTANCE COMPARISON

| | Test Method | % HAZE | | |
|--|----------------------|------------------------|-----------------|-------|
| | | Uncoated Polycarbonate | LEXAN MRT Sheet | Glass |
| TABER ABRASION 100 CYCLES CS 10F | ASTM D 1044 Z26.1 | 35.0 | 1-3 | 0.5 |

‡ The Taber Abrader test measures the percent of change in haze that results from the grinding action of two abrasive impregnated wheels on the test samples. A constant load of 500 grams is maintained as the samples rotate on a turntable for a predetermined number of revolutions.

IMPACT RESISTANCE ¶



¶) Drop Dart Test with a 5-lb steel dart and a 1" diameter tip.

OPTICAL

| | Gauge | Test Method | Typical Value |
|--------------------|-------|-------------|---------------|
| Light Transmission | 0.118 | ASTM D1003 | 88% |
| Light Transmission | 0.236 | ASTM D1003 | 85% |
| Light Transmission | 0.500 | ASTM D1003 | 80% |

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