



# LEXAN™ MARGARD™ MR5T SHEET

## PRODUCT DATASHEET

### DESCRIPTION

Mar and UV-resistant LEXAN™ MARGARD™ MR5T Sheet combines the impact strength of Lexan polycarbonate sheet with an abrasion and UV resistant surface that approaches glass in performance. LEXAN™ MARGARD™ MR5T Sheet with MARGARD™ coating is backed by a five-year limited written warranty against yellowing, abrasion resistance, breakage, loss of light transmission, and coating failure.1) LEXAN™ MARGARD™ MR5T Sheet is a great candidate for transportation and glazing applications requiring improved Taber. Our coating is graffiti-resistant enabling restoration to a like-new condition. Due to its mar-resistant coating, LEXAN™ MARGARD™ MR5T sheet cannot be cold-formed.

### TYPICAL PROPERTY VALUES ◆

| PROPERTY   | TEST METHOD | UNITS    | VALUE                  |
|--|-------------|----------|------------------------|
| <b>Physical</b>  |             |          |                        |
| Specific Gravity                                       | ASTM D792   | -        | 1.20                   |
| Light Transmission (Average), 1/8" Thick               | ASTM D1003  | %        | 88                     |
| Chemical Resistance                                    | ANSI Z26.1  | -        | Passes#                |
| <b>Mechanical</b>                                      |             |          |                        |
| Tensile Strength, Ultimate                             | ASTM D638   | psi      | 9,500                  |
| Flexural Strength                                      | ASTM D790   | psi      | 13,500                 |
| Flexural Endurance @ 1,800 Cycles/Min,<br>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‡<br>@ 73°F                   | SABIC Test  | ft-lbs   | >200                   |
| @ 32°F   |             |          | >200                   |
| @ 0°F  |             |          | >200                   |
| <b>Thermal</b>   |             |          |                        |
| Coefficient of Thermal Expansion                       | ASTM D696   | in/in/°F | 3.75 x10 <sup>-5</sup> |
| Heat Deflection Temperature @ 264 psi                  | ASTM D648   | °F       | 260                    |
| <b>Flammability</b>                                    |             |          |                        |
| Horizontal Burn (Flame Spread)<br>AEB                  | ASTM D635   | in       | <1                     |
| Ignition Temperature<br>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 Innovative Plastics' 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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[UL File Number: E121562](#)

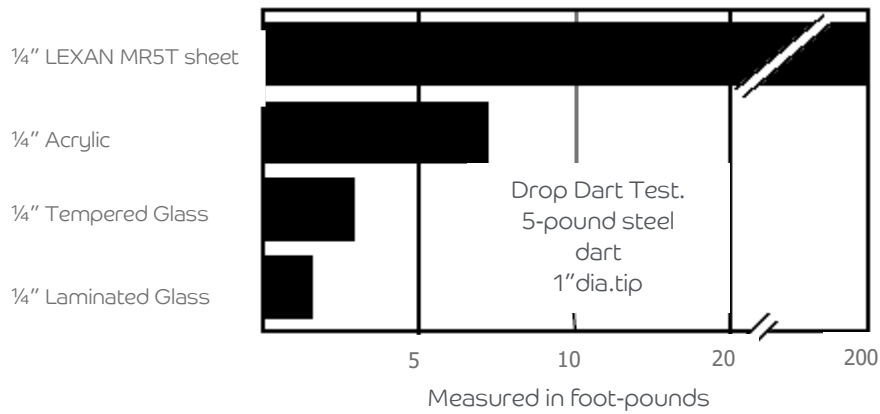
## ABRASION RESISTANCE COMPARISON

LEXAN™ MARGARD™ MR5T Sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the abrasion resistance chart.

|                                     | Test Method         | % Haze                 |                            |       |
|-------------------------------------|---------------------|------------------------|----------------------------|-------|
|                                     |                     | Uncoated Polycarbonate | LEXAN™ MARGARD™ MR5T Sheet | Glass |
| Taber Abrasion<br>100 Cycles CS 10F | ASTM D1044<br>Z26.1 | 35.0                   | <2                         | 0.5   |
| At 500 Cycles                       | ASTM D1044          | 35.0                   | <7                         | 0.90  |

‡ 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



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