

## Description

High abrasion resistant - weatherable, Lexan\* Margard\* MRX sheet is a both-side hard coated polycarbonate sheet offering excellent abrasion resistance, excellent dimensional stability, impact resistance, optical clarity . Typical applications can be sound-barriers, separations screens and flat glazing systems needing impact resistance combined with chemical and abrasion resistance .

## Typical Property Values ♦

| Property                              | Test Method | Unit              | Value              |
|---------------------------------------|-------------|-------------------|--------------------|
| <b>Physical</b>                       |             |                   |                    |
| Density †)                            | ISO 1183    | g/cm <sup>3</sup> | 1.20               |
| Water absorption 23°C/Sat             | ISO 62      | %                 | 0.35               |
| <b>Mechanical</b>                     |             |                   |                    |
| Tensile stress, yield ‡)              | ISO 527     | MPa               | 60                 |
| Tensile modulus ‡)                    | ISO 527     | MPa               | 2350               |
| Elongation, yield ‡)                  | ISO 527     | %                 | 6                  |
| Elongation, break ‡)                  | ISO 527     | %                 | 100                |
| Flexural strength, yield ‡)           | ISO 178     | Mpa               | 90                 |
| Flexural modulus‡)                    | ISO 178     | MPa               | 2300               |
| <b>Thermal</b>                        |             |                   |                    |
| Vicat Softening Temp, Rate B /120‡)   | ISO 306     | °C                | 145                |
| HDT/Be, 0.45 MPa‡)                    | ISO 75/Be   | °C                | 138                |
| Thermal Expansion‡)                   | ISO 11359-2 | 1 / °C            | 7x10 <sup>-5</sup> |
| <b>Optical</b>                        |             |                   |                    |
| Light transmission (<3mm)             | ASTM D1003  | %                 | 89.5               |
| Light transmission (3-6mm)            | ASTM D1003  | %                 | 89.5-86            |
| Taber abrasion ¶)                     |             |                   |                    |
| CS10F, 500g, 500 cycles ( ASTM D1044) | ASTM D1003  | %haze             | < 12               |

♦ These property values have been derived from Lexan\* resin data for the material used to produce this sheet product.

¶) The target value for this property is 10% however, the reproducibility of the test method between laboratories is variable in that single, individual measurements can be as high as 12%.

‡) Coating will crack before specified value.

†) Property of the base sheet and/or uncoated side

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## Chemical resistance

Lexan\* Margard\* MRX sheet has high resistance at the coated side to many chemicals. In applications where it will come into contact with aggressive chemicals, specific (application related) testing of the material is strongly recommended.

## Assembling

Parts made from Lexan Margard MRX sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these techniques can cause environmental stress cracking, please ensure that you have carried out tests regarding its suitability for your applications or end use.

## Product Availability ##)

| gauge (mm) | width (mm) | length (mm) | color |
|------------|------------|-------------|-------|
| 3.00       | 2000       | 3000        | 112   |
| 4.00       | 2000       | 3000        | 112   |
| 6.00       | 2000       | 3000        | 112   |
| 8.00       | 2000       | 3000        | 112   |
| 9.50       | 2000       | 3000        | 112   |
| 12.0       | 2000       | 3000        | 112   |

##) From 3.00mm up to and including 12.00mm , other dimensions upon request and are subject to minimum order quantities.



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## Installation

For some applications the ripple orientation may play an important role while installing the Lexan Margard MRX sheet. The ripple orientation is indicated for this purpose on the protective masking.

## Cleaning

- Never scrape the sheet with squeegees, razorblades or other sharp instruments.
- Do not clean Lexan Margard MRX sheet products under sunny and/or hot environments.
- For removal of paints, marker pen inks, lipstick, and graffiti etc., we recommend to use Butyl Cellusolve and products mentioned in the Lexan solid sheet processing manual. Do not use abrasive or alkaline cleaners.
- To remove labels, stickers etc. the use of kerosene, naphta or white spirit is generally effective.
- After having cleaned the Lexan Margard MRX sheet a final wash should be made, using a mild soap solution and finishing with a thorough rinsing with cold water.