



Product Data Sheet

Lexan® Corrugated Greca Sheet: LCS/S/I/GR076/18 LCS/D/I/GR076/18 Dripgard

Description

Lexan® Corrugated Sheet (LCS) is a range of transparent, profiled glazing sheets extruded from Lexan polycarbonate resin.

LCS Greca is designed for applications such as industrial roofing and greenhouses.

The complete LCS range offers:

- high impact strength across a wide temperature range
- availability in 1260 mm and 1870 mm width
- availability with Dripgard condensation control treatment
- excellent optical properties
- light weight
- long-term weather resistance

UV Resistance

The LCS range features a proprietary one-side surface protection against the degrading effects of ultra-violet radiation in natural sunlight.

The UV-protected surface is marked with a continuous ribbon with the text: “Install this side (UV-protected side) outwards”.

Light Transmission

Transparent Lexan® Corrugated Standard Sheet provides an excellent light transmission equal to 90% depending on thickness. Other colors are also available with light transmissions ranging from just 1% to 50%.

Availability

| Length | Width | Thickness | Colours |
|---------------|----------------------|------------------|---|
| 1.0 -11. 6 m | 1260 mm & 1870 mm | 0.8 & 1.0 mm | clear solar grey bronze opal white opaque white |

(Different thicknesses, widths and colours can be available by prior arrangement. Such arrangements may affect prices, warranties and/or other conditions of sale.)



Typical Properties

| Property | Test Method | Unit | Value* |
|---|-------------|-------------------|----------------------|
| Physical | | | |
| Density | ISO 1183 | g/cm ³ | 1.20 |
| Water permeability (1 mm), 24 hrs | DIN 53122 | g/m ² | 2.3 |
| Optical | | | |
| Light transmission (1mm) | ASTM D1003 | | |
| Bronze (51022) | | % | 21 |
| Clear (112) | | % | 90 |
| Opal White (82338) | | % | 50 |
| Solar grey (71675) | | % | 47 |
| Opaque White (805085) | | % | 1 |
| Mechanical | | | |
| Tensile strength, yield | ISO 527 | MPa | 60 |
| Elongation, yield | ISO 527 | % | 7 |
| Tensile modulus | ISO 527 | MPa | 2300 |
| Gardner impact (1 mm) | GE method | J | 24 |
| Thermal | | | |
| VICAT softening temp., rate B/120 | ISO 306 | °C | 145 |
| Coefficient of linear thermal expansion | DIN 53752 | 1/°C | 7 x 10 ⁻⁵ |
| Continuous use temp rating | UL 746B | °C | 100 |
| Oxygen index | ISO 4589 | % | 25 |

*Note: Typical values only. Variations within normal tolerances are possible for the various colours.

Dripgard Properties

Lexan® Corrugated Sheet is also available with Dripgard treatment on the inward facing side. This proprietary treatment reduces surface tension, preventing the formation of water droplets and distributing the condensation water in a thin film over the sheet surface. Therefore the light transmission doesn't get reduced by the water droplets and plant diseases and spoilage are prevented.

Fire Test Performance

Lexan® Corrugated Sheet has good fire performance against many national fire codes dependent on thickness and colour; please check with the local sales office for details.

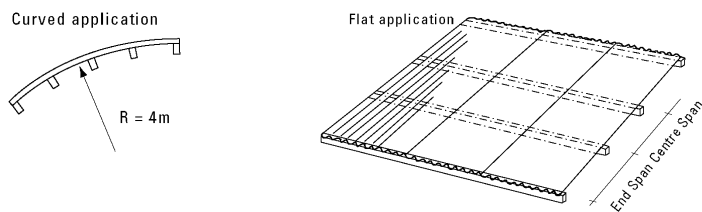
Impact / Hail Performance

Lexan® Corrugated Sheet has outstanding impact performance over a wide temperature range, -40°C to +120°C. In addition, the product is virtually unbreakable in case of storms, hail-stones etc. The hail simulation test shows that Lexan® Corrugated Sheet can withstand hail stones with a typical diameter of 20mm at speeds higher than 21 m/s.

Loading Capacity

The table gives maximum external loadings before buckling of LCS.

At lower loadings also the deflection behaviour of the sheet will vary with the fixing or clamping conditions; consult GE Structured Products for information on specific situations.



| Profile type | Recommended span (mm) | Max allowable loading (N/m ²) ** | | |
|--------------|-----------------------|--|-------------|----------------------------------|
| | | single span/ end span | centre span | radius 4 m* end / centre span |
| LCS Greca | 1000 | 1000 | 1500 | 1000 1500 |
| | 1200 | 500 | 1000 | 500 1000 |

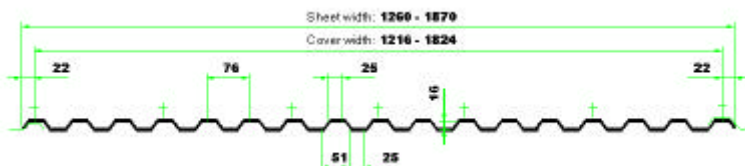
* The recommended minimum radius in curved applications is 4 m.

** Typical values only

Site Safety

Despite the high strength of polycarbonates, sensible precautions should be taken when working with LCS. In particular, crawl boards should be used during installation. Do not walk directly on sheets.

Greca Profile



Dimensions in (mm)/All dimensions determined from an unloaded sheet at 25°C.

Weight

| | | |
|-----------|----------------|------------------------|
| LCS Greca | Weight 0.8 mm: | 1.16 kg/m ² |
| | Weight 1.0 mm: | 1.45 kg/m ² |

Warranty

GE Structured Products offers a limited warranty on all standard Corrugated Sheet products, covering loss of light transmission within ten (10) years of the date of sale and loss of impact strength due to weathering within five (5) years of the date of sale. See warranty for exact details.

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