



Product Data Sheet

Lexan® Corrugated Omega Sheet: LCS200 LC200DG Dripgard

Description

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

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

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 89% 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)		%	89
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.

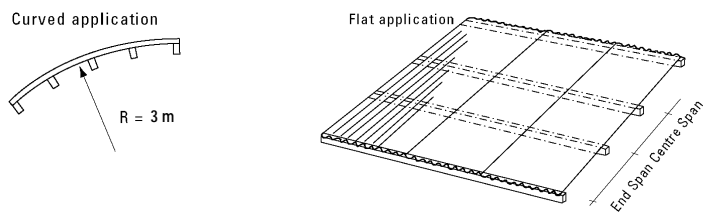
Impact / Hail Performance

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 3 m* end / centre span
LCS Omega	1000	1000	1500	1000 1500
	1200	500	1000	500 1000

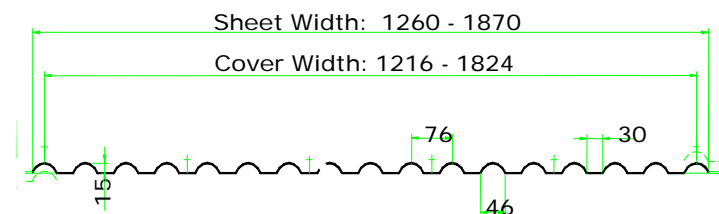
* The recommended minimum radius in curved applications is 3 m.

** 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.

Omega Profile



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

Weight

LCS Omega	Weight 0.8 mm:	1.08 kg/m ²
	Weight 1.0 mm:	1.35 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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