

LEXAN™ THERMOCLEAR GENERAL PURPOSE MWS

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ THERMOCLEAR™ sheets are sheets with a range of high quality, multi-wall polycarbonate glazing sheets extruded from LEXANTM resin. The complete range offers remarkable impact strength, high light transmission, lightweight, long-term weather resistance and, due to the multi-wall construction, outstanding thermal insulation properties and is 2 sides UV protected. LEXAN™ THERMOCLEAR 2UV sheet grades are available in the standard colors Clear (112), Bronze (515055), Opal White (WH7A092X), Metallic Grey (GY6A744M), Blue (215102), Green (31923), Greenish Blue (21271) & IR Green (GN8B038T).

PRODUCT AVAILABILITY

| SABIC GRADE NAME** | GAUGE (MM) | STANDARD WIDTH (MM) | AVAILABLE LENGTHS (MM) |
|--------------------|------------|---------------------|------------------------|
| L2CU2R13 | 6 | 1220 | 11800 |
| L2CU2R15 | 8 | 1220 | 11800 |
| L2CU2R17 | 10 | 1220 | 11800 |
| L2CU3T27 | 16 | 1220 | 11800 |

** Please check our latest product guide for MOQ & Stock (MTI) items

TYPICAL PROPERTY VALUES

| GRADE | (MM) | STRUCTURE | WEIGHT (KG/M ²) | ^ U VALUE (W/M ² K) | RIB DISTANCE (MM) |
|----------|------|-------------------------|-----------------------------|--------------------------------|-------------------|
| L2CU2R13 | 6 | 2 wall Rectangular | 1.30 | 3.86 | 6.00 |
| L2CU2R15 | 8 | 2 wall Rectangular | 1.50 | 3.56 | 10.00 |
| L2CU2R17 | 10 | 2 wall Rectangular | 1.70 | 3.26 | 10.00 |
| L2CU3T27 | 16 | 3 wall Tunnel structure | 2.70 | 3.02 | 20.00 |

^ U-values based on SABIC calculated values according ISO 10077

#LIGHT TRANSMISSION STANDARD COLORS

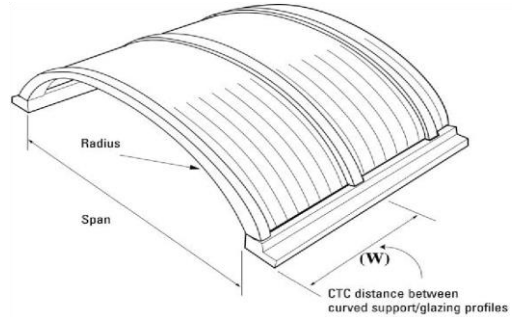
| Color Code | Color | 6/2R (1.3Kg/m ²) % | 8/2R (1.5Kg/m ²)% | 10/2R (1.7Kg/m ²) % | 16/3T (2.7Kg/m ²) % |
|------------|---------------|--------------------------------|-------------------------------|---------------------------------|---------------------------------|
| 112 | Clear | 80 | 78 | 77 | 70 |
| 515055 | Bronze | 36 | 37 | 37 | 37 |
| WH7A092X | White | 54 | 51 | 45 | 46 |
| 215102 | Blue | 29 | 27 | 27 | - |
| 31923 | Green | 44 | 42 | 42 | - |
| 21271 | Greenish Blue | 53 | 48 | 48 | - |
| GY6A744M | Metallic Grey | 15 | 15 | 15 | - |
| GN8B038T | IR Green | 66 | - | 63 | - |

Light transmission measurements acc. ASTM D 1003. The Light transmission values may vary by + or -3 %.

COLD CURVE GLAZING

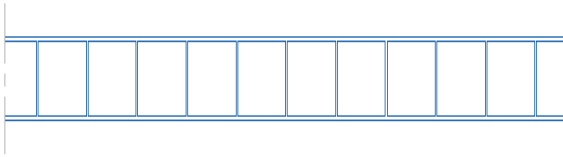
LEXAN™ THERMOCLEAR™ sheet can be successfully cold curved over curved support glazing profiles, to suit many glazing applications, e.g. domes, roof-lights, etc. Providing the radius is not below the minimum recommended value of 2400mm, then the introduced stress by cold curving will not have any adverse effect upon the mechanical performance of the sheet. Sheets must always be bent longitudinally, never across the width of the sheet. Sheet length needs to be greater than the sheet width to facilitate curvature; in practice, a ratio of 1:2 or less is never contemplated because of the practicalities of installation geometry.

| GRADE | GAUGE (MM) | MIN. BENDING RADIUS (MM) | 150X GAUGE |
|----------|------------|--------------------------|------------|
| L2CU2R13 | 6 | 900 | |
| L2CU2R15 | 8 | 1200 | |
| L2CU2R17 | 10 | 1500 | |
| L2CU3T27 | 16 | 2400 | |

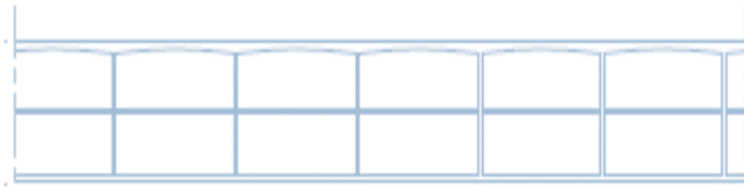


STRUCTURES & NOMENCLATURES

L2CU2R - 2 wall rectangular structure. Available in 6, 8 & 10mm



LTCU3T - 3 wall tunnel structure. Available in 16mm



SOLAR TRANSMISSION

Solar heat gain within a building is caused by heat input from radiation emitted from the sun. Sunlight entering the building heats the air both directly and through absorption by the framework, furniture, etc. and is released as infrared energy. In combination with the insulation properties of LEXAN THERMOCLEAR sheet, this prevents heat escaping faster than it is created causing a temperature increase, the so-called 'greenhouse effect'. The temperature can be controlled by venting, often in combination with special tinted opal white or LEXAN THERMOCLEAR SC IR which contains a proprietary additive, which selectively absorbs the near infrared region of the light. LEXAN THERMOCLEAR is therefore available in many different colors or with IR additives, which both cuts down the brightness of sunlight to a pleasing level and reduces heat buildup inside the building. Calculations for solar heat input through glazing are normally based on data published in 'The Institution of Heating and Ventilating Engineers Guide Book'. These calculations are based on clear glass and correction factors or shading coefficients are then applied when alternative glazing materials are used.

UV RESISTANCE

LEXAN™ THERMOCLEAR sheet is essential opaque to all wavelengths below 385 nanometers. This useful shielding property can prevent discoloration of sensitive materials placed under or behind. The complete LEXAN™ THERMOCLEAR sheet range features a proprietary both sides surface treatment designed to protect the sheet against the degrading effects of ultra-violet radiation in natural sunlight. Both sides UV protected surfaces offers advantage in economically cutting the sheet in desired shapes, and installation mistakes are minimized since both sheet surfaces may be faced outwards.

WARRANTY

SABIC offers a Ten (10) Years Limited Written Warranty on LEXAN™ THERMOCLEAR sheet covering discoloration, loss of light transmission and loss of strength due weathering. See warranty for exact details.

FIRE TEST PERFORMANCE

LEXAN™ THERMOCLEAR sheet has good fire performance against many national fire codes dependent on thickness and color; please check with the local sales office for details.

IMPACT STRENGTH

LEXAN™ THERMOCLEAR sheet has outstanding impact performance over a wide temperature range, -40°C to +120°C, and after prolonged outdoor exposure. As a roof glazing material LEXAN™ THERMOCLEAR 2UV sheet is subjected to the extremes of weather; storms, hail stones, wind, snowfalls and ice formation. Under these conditions, the product is virtually unbreakable and is able to accommodate the subsequent temperature change to sunny conditions without breaking or buckling. Please refer to the warranty for details.

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