POLYVANTIS

PRODUCT DATASHEET

VEROLITE™ FURNITURE GRADE POLYCARBONATE SHEET

DESCRIPTION

VEROLITE™ Furniture sheet grades are high quality, multi-wall polycarbonate glazing sheets extruded from LEXAN™ resin. The complete range offers remarkable impact strength, high light transmission, light weight which is due to the multi-wall construction and outstanding thermal insulation properties. VEROLITE™ Furniture sheet grades are specifically designed for use in interior applications only. VEROLITE Furniture sheet grades are only available in clear colour.

TYPICAL PROPERTY VALUES*

GRADE (Non UV)	GAUGE Inches	GAUGE mm	WEIGHT lb/ft²	WEIGHT kg/m²	COLOUR	† SOUND REDUCTION DB	^ U VALUE BTU/ hr ft² °F	^U VALUE W/m² K	¶ IMPACT TEST GARDNER
VUH0613	0.236	6	0.266	1.3	Clear - 112	17	0.627	3.56	>72
VUH0817	0.315	8	0.348	1.7	Clear - 112	18	0.574	3.26	>72
VUH1020	0.394	10	0.409	2.0	Clear - 112	19	0.532	3.02	>72

LIGHT TRANSMISSION STANDARD COLOR

GRADE (Non UV)	COLOUR	LT° D65 %	DST# %	TST° %	SHGC#	LSGR#	SC#
VUH0613	Clear - 112	82	76	82	0.82	1.00	0.94
VUH0817	Clear - 112	81	77	82	0.82	0.99	0.94
VUH1020	Clear - 112	81	76	80	0.80	1.01	0.92

◆ These property values have been derived from LEXAN™ resin data for the material used to produce this sheet product.

† Sound reduction value based on POLYVANTIS calculated values according DIN 52210-75

^ U-values based on POLYVANTIS calculated values according ISO 10077 (EN673)

¶ Impact test using Gardner Impact method ASTM D4226, D5420, D5628

• LT (Light Transmission) and TST (Total Solar Transmission) measurements according ISO 9050 (EN 410) on 600x600 mm samples.

TST (Total Solar Transmission) divided by 100 equals Solar Heat Gain Coefficient (SHGC) or g-value.

DEFINITIONS

SOLAR TRANSMISSION

VEROLITE™ Furniture sheet grades have excellent light transmission. Although VEROLITE Furniture sheet grades have less solar transmission versus traditional glass.

WARRANTY

POLYVANTIS offers a Ten (10) Year Limited Written Warranty on VEROLITE Furniture sheet grades covering breakage. For detailed information, please contact your local POLYVANTIS Service Center or authorized distributor.

THERMAL INSULATION

The multi-wall structure of VEROLITE™ sheet offers significant advantages where thermal insulation is a major consideration. The hollow form provides excellent insulation characteristics with heat losses significantly lower than mono-walls glazing materials.

FIRE TEST PERFORMANCE

VEROLITE Furniture sheet grades have good fire behavior characteristics, with a CC1 and Class A rating according to ASTM D635 and E84 testing respectively. More detailed information is available from your local POLYVANTIS service Center or authorized distributor.

SOUND INSULATION

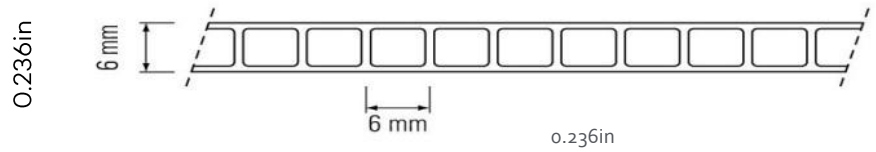
The sound insulation characteristics of a material are largely pre-determined by its stiffness, mass and physical construction. According to DIN 52210-75, the maximum obtainable sound is 21dB.

IMPACT STRENGTH

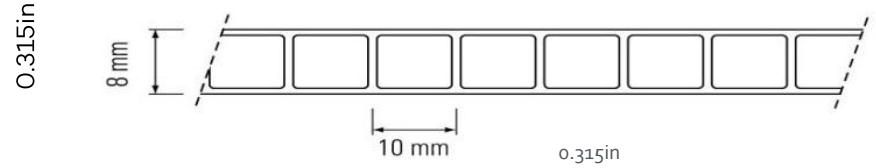
VEROLITE Furniture sheet grades have outstanding impact performance over a wide temperature range, -40°F to 248°F, (-40°C to 120°C) and also after prolonged outdoor exposure.

STRUCTURES AND NOMENCLATURES

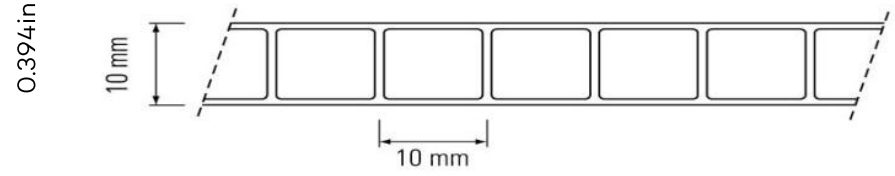
VUH0613



VUH0817



VUH1020





GENERAL GUIDELINES

STORAGE

VEROLITE™ Furniture sheet grades should be stored and protected against atmospheric influences like sun, rain, etc. Care should be exercised when handling and transporting VEROLITE Furniture sheet grades in order to prevent scratches on the panel surface and damage to the panel edges.

CLEANING

POLYVANTIS recommends cleaning surfaces with lukewarm water, using a soft sponge and a solution of mild soap. Do not use any corrosive materials or chemicals to clean VEROLITE Furniture sheet grades. Using any other cleaning agents than the recommended one must have the prior approval of POLYVANTIS in order to validate the VEROLITE sheet warranty.

CHEMICAL RESISTANCE

Neoprene, EPT or EPDM rubbers with an approximate Shore Hardness of A65 are recommended. When using glazing compounds it is essential that the sealant system accepts a certain amount of movement to allow for thermal expansion, without loss of adhesion to the frame or sheet. Silicone sealants are generally recommended for use with VEROLITE Furniture sheet grades. It is strongly advised when using sealing to check compatibility before use.

SAWING

VEROLITE Furniture sheet grades can be cut easily and accurately with standard workshop equipment. This includes common circular, hand and hacksaws. Saw dust should be blown out of the channels using clean compressed air. Circular saw blade should be fine-toothed panel blades. When hand or power hacksaws are used, the sheet should be clamped to the worktable to avoid undesirable vibration.

THERMAL EXPANSION ALLOWANCE

Since VEROLITE Furniture sheet grades has a greater linear thermal expansion coefficient than that of traditional glazing materials, care should be taken to allow for free expansion of the sheet to prevent bowing and internal thermal stress. Thermal expansion allowance must be made for both the length and width of the VEROLITE Furniture sheet grades. In general, thermal expansion of the sheet is approximately 0.036in per linear foot or 3mm per linear meter.

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SAFETY

The processing guidance given in this documentation is given in good faith and the trust that in all cases you wear the correct Personal Protective Equipment (PPE), e.g. helmet, proper gloves, safety goggles etc. to safely fabricate, e.g. (but not limited to) sawing, cutting, forming our sheets and films. In all cases you should follow local and national regulations around the wear of PPE's prescribed or mandatory to perform these tasks in a safely manor.