

## Lexan\* Exell\*D Venetian & Venetian Honeycomb Sheet Product Datasheet

### Description

Weatherable decorated sheet.

Lexan Exell D Venetian sheet is a decorated transparent polycarbonate sheet with proprietary UV protection on one side, offering excellent weathering properties. One side has been decorated with a colored stripe-or honeycomb pattern. The sheets are thermoformable and may be applied in curved applications as well, offering freedom and flexibility in design. Combined with the excellent impact resistance it is an excellent candidate for a wide variety of building and construction applications such as skylights, walkways, barrel-vaults, roof-domes and decorated glazing applications.

### Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.20
Water absorption, equilibrium	DIN 53495	%	0.35
<b>Mechanical</b>			
Tensile stress, yield <sup>#</sup>	ISO 527	MPa	60
Tensile modulus <sup>#</sup>	ISO 527	MPa	2200
Elongation, yield <sup>#</sup>	ISO 527	%	6
Elongation, break <sup>#</sup>	ISO 527	%	110
Flexural strength, yield <sup>#</sup>	ISO 178	MPa	95
Flexural modulus <sup>#</sup>	ISO 178	MPa	2300
<b>Thermal</b>			
Vicat Softening Temperature, B/120 <sup>#</sup>	ISO 306	°C	145
Thermal Expansion <sup>#</sup>	ASTM D696	1/ °C	7x10 <sup>-5</sup>
HDT, 0.45 MPa <sup>#</sup>	ISO 75 /Be	°C	138

### Light Transmission properties<sup>‡</sup>

	Light Transmission		Solar Reflectance		Solar Transmission		Shading Coefficient	
	Striped	Honey comb	Striped	Honey comb	Striped	Honey comb	Striped	Honey comb
White	40		28		44		0.51	
Cool grey		35		27		42		0.48
Light blue	31	30	19	21	43	40	0.49	0.46
Dark blue	39	33	8	8	58	55	0.67	0.63
Green	42	47	22	22	46	49	0.53	0.56

<sup>‡</sup> Internal measurements done on 3.00mm according DIN 67505

Lexan Exell D Venetian and Venetian Honeycomb sheet are decorated on the reverse side with either a stripe or Honeycomb pattern which in addition to nice aesthetics, may provide a reduction of heat build-up. This reduction of heat build-up beneath the sheet, e.g. inside the building is caused by the absorbance of the infra-red rays of the sunlight whilst maintaining a good visible light transmission. The Lexan Exell D Venetian and Venetian Honeycomb sheet is essentially opaque to all wave lengths below 385 nanometers. This useful shielding property can help prevent discoloration of sensitive materials placed under or behind the sheet. Be aware that Lexan Exell D Venetian and Venetian Honeycomb are subject to color impression variances from production lot to production lot hence we advise using a single production lot per project.

♦ This property values has been derived from Lexan\* resin data for the material used to produce this sheet product. These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC innovative Plastics representative. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties are measured on injection molded samples. All samples are prepared according ISO 294.

<sup>#</sup> All values are typical values

\* Trademarks of SABIC Innovative Plastics IP BV

## Lexan\* Exell\*D Venetian & Venetian Honeycomb Sheet Product Datasheet

### UV Protection

The complete Lexan Exell D Venetian sheet range features a proprietary surface treatment designed to help protect the sheet against the degrading effect of ultra-violet radiation in natural sunlight. The un-decorated side must always be installed facing outward and the decorated side must always be facing inwards to avoid direct sun-light on the decoration ink.

### Fire Performance

The complete Lexan Exell D Venetian and Venetian Honeycomb is expected to have a good fire performance against many national fire codes. A test program is on-going.

### Product Availability

<b>Product code:</b>	Lexan Exell D VEN 112 BWS = Venetian white-striped decoration Lexan Exell D VEN 112 BCGH = Venetian cool gray honey-comb decoration
<b>Standard gauge in mm:</b>	3 - 4 - 5 - 6
<b>Standard sizes:</b>	1250 x 2050 mm, 1250 x 3050 mm
<b>Masking:</b>	Topside: coex transparent, bottom side: coex transparent
<b>Standard colors:</b>	White (112W), cool gray (112 CG), light blue (112 LB), dark blue (112 DB), green (112 G)

Other colors/sizes are available by special request.



\* Trademark of SABIC Innovative Plastics IP BV

Americas:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
One Plastics Avenue  
Pittsfield, MA 01201  
USA  
Tel. (1) (413) 448 5400  
Fax. (1) (413) 448 7506  
Toll free: 1-800 451 3147

Europe:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
Plasticslaan 1  
NL - 4612 PX Bergen op Zoom  
The Netherlands  
Tel. (31) (164) 292911  
Fax. (31) (164) 293272

Pacific:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
1266 Nanjin Road (W)  
Plaza 66, 17th Floor  
200040 Shanghai, China  
Tel. (86) 21 62881088  
Fax. (86) 21 62880818

THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com> AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of Sabic Holding Europe BV

\* Trademark of SABIC Innovative Plastics IP BV