SUNLITE®

Multiwall Polycarbonate Sheet

AGRICULTURE CONSTRUCTION DIY SIGN & DISPLAY ARCHITECTURE

Overview

SUNLITE's cellular polycarbonate structure yields a lightweight sheet with high impact strength and superior thermal insulation. High light transmission makes SUNLITE ideal for varied roofing, wall cladding, and glazing applications.

SUNLITE has a wide product range: from anti-condensation treatment for greenhouses and garden centers to SolarSmart™ sheets that create cool climatic conditions.

Interior designers and advertisers take advantage of SUNLITE's special appearance and add a unique touch to their designs.

Main Benefits

- High thermal insulation
- Lightweight and impact resistant
- High light transmission
- Excellent structural durability
- Weather and UV resistance
- Blocks virtually all UV radiation
- Easy to handle and install
- High fire performance rating

Typical Applications

- Architectural roofing and glazing
- Skylights and sidelights
- Conservatories
- Covered walkways
- Displays, signage and decorations
- Industrial roofing and glazing
- Residential roofing and glazing
- Covered swimming pools
- Agricultural greenhouses

SUNLITE® Product Range

Product	Description
SUNLITE®	Standard sheet with UV protection on one side
SUNLITE® UV2	UV protection on both sides
SUNLITE® ML	Multi-layered color combinations for special designs
SUNLITE® Plus	With anti-condensation, for greenhouses
SUNLITE® Solar Control	Solar metallic reflective heat blocking sheet.
SUNLITE® SLT	Heat blocking and anti-condensation for garden centers.
SUNLITE® Smart	See-through sheet with advanced heat-blocking.

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Colors*

Structure	Standard Colors						Multi-Layered		Solar Smart		LT = Light Transmission ST = Solar Transmission	
	Clear	Bronze	White Opal	White Diffuser	Green**	Blue**	Bronze/Opal	Solar Guard (Solar Control/Opal)	Solar Ice	Solar Control**	SLT	Smart Green
Twin wall 4mm	82%	35%	30%		35%	30%				30%		
Twin wall 4.5mm	82%	35%	30%		35%	30%				30%		
Twin wall 6mm	80%	35%	20%	60%	35%	30%				30%		
Twin wall 8mm	80%	35%	35%	55%	35%	30%				25%	60%/55%	
Twin wall 10mm	79%	35%	30%		35%	30%				25%	60%/55%	
Triple wall 8mm	76%	35%	48%		35%	30%				25%		
Triple wall 10mm	76%	35%	48%		35%	30%				25%		
Triple wall 16mm	76%	35%		48%	35%	30%						
V-Structure 20mm	63%	25%	20%	10%						18%		
V-Structure 25mm	62%			30%								
V-Structure 32mm	61%	20%		20%								
V-Structure 35mm	60%											
V-Structure 40mm	58%											
X-Lite 16mm	60%	25%		38%	35%							
X-Lite 20mm	60%	25%	15%				10%	5%	20%	20%		42%/35%
X-Lite 25mm	60%	25%	15%				10%	5%	20%	20%		42%/35%
X-Lite 32mm	58%	20%	15%				10%	5%	20%	20%		42%/35%
X-Lite 35mm	57%	20%	15%				10%	5%	20%	20%		42%/35%
7 Walls 8mm	64%	29%		45%						20%		
7 Walls 10mm	64%	29%		45%								
7 Walls 16mm	64%	29%		38%								
7 Walls 20mm	62%	29%		38%								
7 Walls 25mm	60%	22%		38%								

*Light transmission values adhere to ASTM D-1003. **Blue, Green and Solar Control are made to order only.

Dimensions

Structure	Thickness (mm)	Area Weight (Kg/m²)	U-Value (W/m²·°K)	Width (mm) (*USA Only) 700	980	1050	1200	1220*	1250	1600	1800	1830	2080	2085	2090	2095	2100
Twin Wall	4	0.8	3.8		✔	✔	✔	✔				✔					✔
	4.5	1.0	3.7		✔	✔	✔					✔					✔
	6	1.3	3.5		✔	✔	✔	✔				✔					✔
	8	1.5	3.3		✔	✔	✔	✔				✔					✔
	10	1.7	2.9		✔	✔	✔	✔				✔					✔
Triple Wall	8	1.7	3.0									✔					✔
	10	2.0	2.7									✔					✔
	16	2.7	2.3		✔	✔	✔	✔	✔	✔	✔	✔					✔
X-Lite	16	2.5	2.1		✔	✔		✔	✔	✔	✔						✔
	20	2.8	1.85		✔	✔		✔	✔	✔	✔						✔
	25	3.0	1.7		✔	✔		✔	✔	✔	✔						✔
	32	3.2	1.6		✔	✔		✔	✔	✔	✔						✔
	35	3.5	1.5		✔	✔			✔	✔	✔						✔
V-Structure	20	2.8	1.65											✔			
	25	3.4	1.6												✔		
	32	3.6	1.5													✔	
	35	3.8	1.45													✔	
	40	4.0	1.35							✔	✔						✔
7 Walls	8	1.8	2.7	✔	✔	✔	✔		✔				✔				
	10	1.9	2.3	✔	✔	✔	✔		✔						✔		
	16	2.65	1.75	✔	✔	✔	✔		✔								✔
	20	2.9	1.55	✔	✔	✔	✔		✔								✔
	25	3.4	1.39	✔	✔	✔	✔		✔								✔

*Other structures, dimensions and weights are available upon request. Please contact your Palram distributor for more details.

Typical Physical Properties

Property	Method*	Conditions	Units	Value
Density	D-792		g/cm³	1.2
Heat deflection temperature (HDT)	D-648	Load: 1.82 MP	°C	135
Service Temperature - Short term			°C	-50 to +120
Service Temperature - Long term			°C	-50 to +100
Coefficient of linear thermal expansion	D-696		mm/mm °C	6.5x10⁻⁵
Tensile strength at yield	D-638	10 mm/min	MPa	62
Elongation at break	D-638	10 mm/min	%	> 50
Impact falling dart	ISO 6603/1		J	40-400
Practical thermal expansion/contraction			mm/m	3

* ASTM except where noted otherwise.

Flammability

SUNLITE complies with the most demanding international fire resistance standards in the field of plastics, as indicated in the detailed table herein. The classification is subject to product type, thickness and color.

Method	Classification*
BS 476/7	Class 1
ASTM D-635	CC-1 (SUNLITE® FR)
EN 13501	B, s1, d0
ASTM E-84	Class A

* For more detailed information please contact your Palram distributor.

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