



CONSTRUCTION FABRICATION ADVERTISING ARCHITECTURAL



FLAT SOLID PRODUCT RANGE

MAIN BENEFITS

- ◆ High impact resistance - Virtually unbreakable
- ◆ High clarity and light transmission
- ◆ Weather and UV resistant
- ◆ Wide service temperature range
- ◆ Block harmful UV radiation
- ◆ Good acoustical insulation
- ◆ Lightweight
- ◆ Easy to handle and install
- ◆ Versatile, formable and machinable



TYPICAL APPLICATIONS

Safety and Security Glazing

- ◆ Safety glazing
- ◆ Machine guards
- ◆ Bus stops and telephone booth
- ◆ Shields for police and security forces
- ◆ Glazing in public transportation
- ◆ Safety windshields for cars
- ◆ Eye protection visors for helmets

Construction

- ◆ Transparent acoustic barriers
- ◆ Architectural roofing
- ◆ Skylights
- ◆ Hall and shopping center ceilings
- ◆ Covered walkways
- ◆ Sun rooms and conservatories
- ◆ Pergolas and covered patios
- ◆ Attic windows



Advertising

- ◆ Signboards and illuminated signage
- ◆ Light Fixtures (clear)

Other Applications

- ◆ Thermoformed, vacuum formed, bent, and fabricated items

TYPICAL PHYSICAL PROPERTIES

Property	Method	Conditions	Units	Value
Density	D-792		g/cm ³	1,2
Heat deflection temperature	D-648	Load: 1.82 MP	C	130
Service Temp. (Short term)			C	-50 to +120
Service Temp. (Long term)			C	-50 to +100
Coefficient of linear thermal expansion	D-696		mm/mC	0.065
Thermal conductivity	C-177		W/m k	0.21
Tensile strength at yield	D-638	10 mm/min	MPa	65
Tensile strength at break	D-638	10 mm/min	MPa	60
Elongation at yield	D-638	10 mm/min	%	6
Elongation at break	D-638	10 mm/min	%	>90
Tensile modulus of elasticity	D-638	1 mm/min	MPa	2,300
Flexural strength mechanical	D-790	1.3 mm/min	MPa	100

Flexural modulus	D-790	1.3 mm/min	MPa	2.600
Impact falling weight	(ISO 6603/1 E50)	3mm sheet	J	158
Rockwell hardness	D-785		R Scale	125R
Light Transmission	D-1003	3mm Clear sheet	%	90
Haze	D-1003	3mm Clear sheet	%	< 0.5
Yellowness index	D-313	3mm Clear sheet	YI	< 1

*ASTM except where noted

FLAMMABILITY

Has a low flammability rating and does not emit toxic gasses when burning.

Standard	Classification*
EN13501	B, s1, d0
BS 476/7	Class 1
NSP 92501,4	M2
DIN 4102	B1, B2
UL Classified	V2 (File e221255)
ASTM D-635	CC1

STANDARD DIMENSION

Thickness (mm)	Width x Length (mm)
1.5	2.050 x 3.050
2	2.050 x 3.050
3	2.050 x 3.050
4	2.050 x 3.050
6	2.050 x 3.050
8	2.050 x 3.050

Installation

Product masking (protective film) must be removed from both sides immediately after installation. Installation instructions are available from your distributor upon request.

LIMITED WARRANTY

PALSUN - Manufacturer's 10 (Ten) Years Limited Warranty

Definition

PALSUN Solid Flat transparent or translucent polycarbonate sheets (hereinafter "the Product") are hereby warranted by the manufacturer, subject to any other terms contained herein.

Commencement Date

The commencement date shall be the date of the Product's manufacture or - if such date does not appear on the product - the date upon which the product was purchased from Manufacturer.

Scope of Warranty

- 1) Light transmission - product shall not lose more than 10% of its light transmitting capability for a period of 15 years from commencement date, as defined below, as a direct and exclusive result of solar radiation impact (as measured pursuant to the procedures specified in ASTM D-1003-77)
- 2) Colour - product shall not display change in yellowness of more than 15 units delta (hereinafter "decrease") for a period of 15 years from commencement date as a direct or exclusive of impact from solar radiation (as measure pursuant to the procedures specified in ASTM E-313-05)
- 3) Breakage - product shall not break due to loss of impact strength as a direct and exclusive result of weathering and/or shall not break as a direct and exclusive result of the impact of hail measuring less than 25mm in diameter and attaining a velocity of up to 20m/s (44.7mph). The loss of this capability is hereafter referred to as "breakage". Excessive loss of impact strength will be tested according to the ISO 6603/1-1985(E) and/or ASTM D-5628-95 method F test applied to a sample of the broken sheet. This warranty only applies if the sample shatters (brittle breaks into separate pieces)

Notes

In the case of TF (Thermo Forming) application this warranty shall apply only if using the special TF material.

- 4) Limitations - Warranty only valid if product is handled, stored, cleaned, installed and maintained with manufacturer's recommendations and instructions.
- 5) Claims and Notifications - every Warranty claim must be notified in writing to the Manufacturer within the warranty period and immediately after the occurrence of decrease or breakage, enclosing the original sales receipt and this warranty. The claimant must allow the Manufacturer to inspect any or all the sheets involved and the installation site itself while the sheets are still in their original position and have not been removed or moved or altered in any way and /or, on the Manufacturers instruction, return the sheets for testing. The Manufacturer reserves the right to investigate independently the cause of any failure.

