PALCLEAR®

Flat Transparent PVC Sheet

CONSTRUCTION FABRICATION ADVERTISING

Overview

PALCLEAR transparent sheets provide solutions to various applications in populated indoor areas.

PALCLEAR combines excellent mechanical properties and impact strength, water-clear clarity, excellent resistance to chemicals and fire resistance. It withstands many chemical agents and can be easily formed using various fabrication techniques.

Optional characteristics range from high clarity and anti-glare surface to increased impact resistance.

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Main Benefits

- Excellent resistance to chemicals
- High fire rating: for populated areas
- High light transmission
- Water Clear Clarity
- Optional high-impact and UV resistance
- Formable: can be thermoformed, vacuum formed, bent hot or cold, fabricated
- PALCLEAR® Matte: Anti-glare finish on one side to eliminate reflection

Typical Applications

- Transparent advertising items
- Indoor signage in populated areas
- High impact glazing
- Machine guards
- Chemically resistant safety glazing
- Fabrication and forming applications
- Anti-glare glazing and frame covers

Build On.

PALCLEAR®

Colors

Transparent	Water-Clear, Bronze, Bluish
Translucent	White Opal, White Diffuser

Standard Dimensions

Thickness (mm)	Dimensions (mm)	PALCLEAR®	PALCLEAR® UV	PALCLEAR® HI
1-2	1000x2000			✔
	1220x2440			✔
	1300x2500			✔
	1500x3000			✔
	2000x3050			✔
3-4	1000x2000	✔	✔	
	1220x2440	✔	✔	
	1300x2500	✔	✔	
	1500x3000	✔	✔	
	2000x3050	✔	✔	
5-6	1000x2000	✔	✔	
	1220x2440	✔	✔	
	1300x2500	✔	✔	
	1300x2500	✔	✔	
8-15	1000x2000	✔		
	1220x2440	✔		
	1300x2500	✔		

*Other dimensions are available, subject to minimum quantity.

PALCLEAR® Product Range

Product	Description
PALCLEAR® Water Clear*	Clear UV stabilized PVC sheet
PALCLEAR® Bluish	Traditional bluish tint
PALCLEAR® UV	UV protected on one side
PALCLEAR® HI	High Impact: Increased impact resistance
PALCLEAR® Embossed	Prismatic embossed finish on one side
PALCLEAR® Matte	Matte finish on one side
PALCLEAR® Difffuser	For indoor light box applications

* Water-Clear is PALCLEAR's standard color. Bluish tint is available upon request.

Flammability

PALCLEAR sheets are self extinguishing and comply with the most demanding international fire resistance standards as indicated in the attached table.

Standard	Classification*
EN 13501	B, s2, d0
DIN 4102	B-1
BS 476/7	Class 1
NSP 92501,5	M-1, M-2
IEC 695.2.1	Self-extinguishing
CSE RF 3/77	Class 1
UL 94	V-0

** Depends on thickness, color and type.*

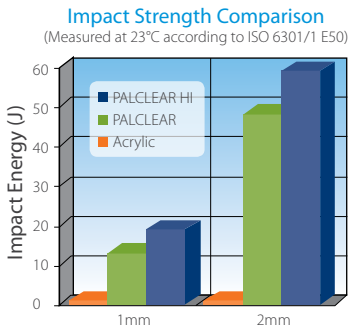
Typical Physical Properties

Property	Method*	Conditions	Units	Value
Density	D-792		g/cm^3	1.4
Water absorption		24 hr. at 23°C	%	0.03
Heat deflection temperature	D-648	Load: 1.82MPa	°C	62 - 65
Service temperature range			°C	-10 to +50
Thermal conductivity	C-177		W/m K	0.15
Coefficient of linear thermal expansion	D-696		cm/cm °C	6.7×10^{-5}
Tensile strength at yield	D-638	10 mm/min.	MPa	71
Tensile strength at break	D-638	10 mm/min.	MPa	35
Elongation at yield	D-638	10 mm/min.	%	3
Elongation at break	D-638	10 mm/min.	%	60
Tensile modulus of elasticity	D-638	10 mm/min.	MPa	3,600
Flexural strength	D-790	1.3 mm/min.	MPa	103
Flexural modulus	D-790	1.3 mm/min.	MPa	3,400
Impact behavior - Falling dart	ISO 6603/1 E_{50}	1.3 mm/min.	J	95
Light transmission	D-1003	3mm sheet	%	85

** ASTM except where noted otherwise*
*** PALCLEAR becomes brittle below 0°C, although it will not be damaged if no impact occurs.*

Impact Resistance

PALCLEAR HI and PALCLEAR offer a wider choice to designers and fabricators for point of sale and general fabricated items, particularly when compared to the impact properties of acrylic and polystyrene sheets.



PALRAM

PALRAM H.Q.
Tel: +972.4.8459.900
Fax: +972.4.8444.980
palram@palram.com

PALRAM EUROPE LTD.
Tel: +44.1302.380776
Fax: +44.1302.380788
sales.europe@palram.com

PALRAM AMERICAS
Tel: 610.285.9918
Fax: 610.285.9928
palramamericas@palram.com

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