

# PALRAM

# **PALCLEAR™**

Flat Solid Transparent PVC Sheet







Advertising

ng Fabric

Glazing

#### **▶** Introduction

PALCLEAR provides a versatile solution for applications in populated indoor areas. PALCLEAR has remarkable mechanical properties, impact strength, excellent chemical resistance and self-extinguishing fire resistance. Optional characteristics range from high clarity and anti-reflective surface to increased impact resistance. PALCLEAR withstands many chemical agents, and offers many fabrication options due to its convenient mechanical behavior.



### Main Benefits

- Excellent resistance to chemicals
- Better fire resistance than acrylic or PC
- High light transmission
- Water-like clarity
- Optional high-impact and UV resistance
- 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 & frame covers







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# ► PALCLEAR™ Product Range

Product	Description
PALCLEAR™ Water Clear	Clear UV stabilized general purpose PVC sheet. <b>NEW:</b> PALRAM's famous Water-Clear clarity is now improved with better LT and lower haze
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

<sup>\*</sup> Water-Clear is PALCLEAR's standard color. Bluish tint is available upon request.

#### **▶** Colors

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

#### Available Dimensions

Call Palram for up-to-date availability and run to size orders.

Thickness in. (mm)	Dimensions in.	PALCLEAR™	PALCLEAR™ UV	PALCLEAR™ HI
0.039-0.079 (1-2)	48 x 96			Standard
	Up to 78-3/4" Wide Up to 120" Long			Run to Size*
0.118-0.236	48 x 96	Standard	Standard	
	Up to 78-3/4" Wide Up to 120" Long	Run to Size*	Run to Size*	
0.118-0.236	48 x 96	Standard	Standard	
	Up to 51" Wide Up to 98" Long	Run to Size*	Run to Size*	
0.315-0.591 . (5-6)	48 x 96	Standard		
	Up to 51" Wide Up to 98" Long	Run to Size*		

<sup>\*</sup>These and other dimensions are available, subject to minimum quantity.



#### Typical Physical Properties

Property	Method*	Conditions	Units	Value
Density	D-1505		lb/ft3	87
Water absorption	D-570	24 hr. @ 73 °F	%	0.03
Heat deflection temperature	D-648	Load: 264 psi	°F	144 to 150
Service temperature range**			°F	32 to 122
Thermal conductivity	C-177		Btu-in./hr-ft <sup>2</sup> /°F	1.05
Coefficient of linear thermal expansion	D-696		in./in.°F	3.7x10 <sup>-5</sup>
Tensile strength at yield	D-638	0.4 in./min	psi	10,300
Tensile strength at break	D-638	0.4 in./min	psi	5,650
Elongation at yield	D-638	0.4 in./min	%	3
Elongation at break	D-638	0.4 in/min	%	95
Tensile modulus of elasticity	D-638	0.052 in/min	psi	450,000
Flexural strength	D-790	0.052 in/min	psi	14,900
Flexural modulus	D-790	0.052 in/min	psi	464,000
Impact behavior - Falling dart ISC	O 6603/1 E <sub>50</sub>	0.118 in. sheet	J	95
Light transmission	D-1003	0.118 in. sheet	%	87

<sup>\*</sup> ASTM except where noted otherwise

Impact Energy (J)

# Flammability

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

Standard	Classification*		
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		
ASTM D-635	CC1		

<sup>\*</sup> Depends on thickness, color and type.

# **▶** Impact Resistance

PALCLEAR and PALCLEAR HI 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.

#### Impact Strength Comparison at 73°F (ISO 6301/1 E50)

0.0393 in. 0.0787 in.

Inasmuch as PALRAM Industries has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the material's suitability for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any PALRAM Industries patent covering such use or as recommendations for use of such materials in the infringement of any patent. PALRAM Industries or its distributors cannot be held responsible for any losses incurred through incorrect installation of the material. In accordance with our company policy of continual product development you are advised to check with your local PALRAM Industries supplier to ensure that you have obtained the most up to date information.



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<sup>\*\*</sup> PALCLEAR becomes brittle below 32°F, although it will not be damaged if no impact occurs.