

PALIGHT[®]

Flat Foamed PVC Sheet



PALIGHT® Flat Foamed PVC Sheet



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Introduction

PALIGHT is a lightweight, flexible and durable foamed PVC sheet that is ideal for many advertising and fabrication applications. It brings quality, convenience and versatility to a whole new level on a wide range of applications. PALIGHT exhibits the whitest color available, which results in high quality displays. Tested and approved by most digital flatbed printer manufacturers, PALIGHT has a consistently smooth and bright surface that gives the best color interpretation. PALIGHT is easy to handle, cut and fabricate using conventional tools and equipment, and can be also painted or laminated. PALIGHT is offered with standard matte or glossy finish and is available in a wide range of standard and special designer colors.

Main Benefits








- Consistent, smooth, flat surface for printing and lamination
- Excellent mechanical properties
- Easy handling, cutting, fabrication and bonding
- Lightweight (half the weight of solid PVC sheet)
- Low water absorption (closed cell structure)
- Flammability - self extinguishing
- Good insulation and low heat transmission
- High chemical resistance
- Non-toxic

PALIGHT® Product Range

Product	Description
PALIGHT®	Flat foamed PVC sheet with matte finish, available in a wide range of standard and special thicknesses and designer colors.
PALIGHT® Print	Flat foamed PVC sheet made specifically to cost effectively meet the stringent requirements of wide format print imaging industry.
PALIGHT® LW	Low weight, white only, flat foamed PVC sheet for general purposes.
PALIGHT® 2001	Flat foamed PVC sheet with glossy hard surface on one side, available in white and standard colors.



Colors

Standard Colors	Code	PANTONE®	RAL
 White*	ST-10		
 Red	ST-50	1807U	-
 Yellow	ST-30	108U	-
 Blue	ST-70	288C	-
 Green	ST-80	3415C	-
 Black	ST-90	4C	9011
 Grey	ST-100	430C	7037

* Whites are divided by thickness: 1-10mm: ST-10 12-25mm: Classic White

Designer Colors	Code	PANTONE®	RAL
 Digital White	DE-11		
 Cream	ST-20	-	9001
 Antique Cream	DE-21	Warm Grey 2C	1013
 Smoke Grey	DE-141	428C	7047
 Dim Grey	DE-151	408C	-
 Dark Grey	DE-131	431C	7012
 Burgundy	DE-71	187C	3002
 Cardinal Red	DE-211	193C	3031
 Firebrick Red	DE-61	485C	-
 Orchid Pink	DE-221	204C	4003
 Orange	DE-51	21C	2004
 Blaze Orange	DE-41	158C	2011
 Bright Yellow	ST-40	1235C	-
 Lemon	DE-31	102C	-
 Lime green	DE-181	390C	-
 Sea Green	DE-171	361C	6018
 Mint Green	DE-111	340C	6024
 Olive Green	DE-161	378C	-
 Dark Green	DE-121	3308C	6005
 Turquoise	DE-101	337C	-
 Steel Blue	DE-81	2707C	-
 Sky Blue	DE-201	7401C	-
 Light Blue	ST-60	2935C	-
 Royal Blue	DE-191	287C	-
 Sapphire Blue	DE-91	2757C	5002

* The printed colors and the indicated PANTONE® and RAL designations are the closest match. The indices are presented only to give an approximate indication. To view the exact color, please request a sample chip from your Palram distributor.

** The designer colors are available in all thicknesses and dimensions stated above. They are subject to a minimum quantity.

Typical Applications

Advertising

- Lightweight and durable signs
- Displays
- Exhibition stands



Construction & Industry

- Industrial models
- Partitions
- Ducting
- Control cabinets
- Lightweight structures for corrosive environments
- Wet or wash down wall finish
- Insulation for control cabinets



Recycling Unit



Furniture



Furniture

Screen Printing

- Flat, consistent surface is ideal for screen printing.
- Bright white color enables printers to reproduce true colors and achieve greater impact with white space.
- Suitable for use with aqueous and solvent inks.
- Low absorption of sheet surface provides excellent ink yield.



Screen Printing

Digital Printing

- Specially designed for digital flatbed printers.
- Combines consistent, flat surface with market-leading quality and thickness control.
- Handling with lint-free gloves during production and optional packaging according to the printer's specific requirements reduce risk of surface contamination and to minimise static.
- Suitable for use with UV curing and solvent-based digital inks, and for heat drying when water-based inks are used.
- Bright white color retains superb whiteness after intense UV curing.



Photo Mounting

- Highly suitable for photo mounting and digital printing lamination due to:
- Flat and even surface that allows complete lamination.
- Impact strength and ductility that allows cutting by guillotine or knife.
- High rigidity enables the use of large sheets without the need for support.










Fabrication

- Milled and routed letters, logos and other items.
- 3D signage.



Standard Dimensions*

PALIGHT®

Color		Thickness Availability / Dimensions (mm)		
		1220x2440	1560x3050	2030x3050
White		1-13, 15, 19, 24, 25, 30	All	All
Yellow		3, 5		
Red		3, 5		3, 5
Black		3, 5, 10	3, 5	3, 5, 6, 8, 10
Blue		3, 5		3, 5
Green		3		
Grey		3, 5	3, 5	3, 5

* Special dimensions are available upon request.

PALIGHT® Print

Dimensions (mm)	Thickness (mm)
1,220 X 2,440 1,220 X 3,050	2-10
1,560 X 3,050	2-10
2,030 X 3,050	2-10

* Special dimensions are available upon request. Available in white only.

Flammability

PALIGHT is self-extinguishing and 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.

Standard	Classification*
EN 13501	B, s1-3, d0
BS 476/7	Class 1
NSP 92501,5	M-1, M-2
UL 94	V-0

* For more detailed information please contact your Palram distributor.

Product Masking

PALIGHT has a protective polyethylene film on one side.
PALIGHT 2001 has a protective polyethylene film on both sides.



Typical Physical Properties

Property	Conditions (US*)	ASTM Method	Units - SI (US*)	3mm (0.12 in.) Sheet	10mm (0.39 in.) Sheet
				Value (US*)	Value (US*)
Physical					
Density		D-792	g/cm ³	0.57-0.6	0.5-0.55
Water absorption	24h @ 23°C (73°F)	D-570	%	0.5	0.8
Mechanical					
Tensile strength at yield	10mm/min (0.4in./min)	D-638	MPa (psi)	16 (1,600)	11(1,600)
Elongation at break	10mm/min (0.4in./min)	D-638	%	30	20
Flexural strength at yield	10mm/min (0.4in./min)	D-790	MPa (psi)	28 (3,200)	22 (3,200)
Flexural modulus	10mm/min (0.4in./min)	D-790	MPa (psi)	900 (130,500)	900 (130,500)
Impact strength notch charpy	23°C (73°F)	D-256	J/m (ft·lb/in.)	29 (0.54)	17 (0.32)
Thermal					
Service temperature			°C (°F)	-10 to 55°C (14 to 131°F)	-10 to 55°C (14 to 131°F)
Heat deflection temperature			°C (°F)	63 (145)	63 (145)
VICAT softening temperature	Load: 1.85MPa (264psi)	D-648	°C (°F)	75 (167)	75 (167)
Coefficient of linear thermal expansion	Load: 11Kg (2.2lb)	D-1525	10 ⁻⁵ cm/cm°C	6.7 (3.7)	6.7 (3.7)
Thermal conductivity		D-696	W/mk (Btu·in./hr·ft. ² ·°F)	0.07 (0.49)	0.07 (0.49)
Electrical					
Surface resistance		D-257	Ohm	5x10 ¹⁵	5x10 ¹⁵
Volume resistance		D-257	Ohm-cm	2x10 ¹⁶	2x10 ¹⁶

*Conditions, units and values in U.S. customary units are presented in the table within parentheses

Palram Display Media

Palram offers the widest range of thermoplastic sheets for sign and graphics:

	<p>PALIGHT® Flat Foamed PVC Sheet</p> 	<p>PALIGHT® Print Premium Flat Foamed PVC Sheet</p> 	<p>PALFOAM™ LW Flat Low Weight Foamed PVC Sheet</p> 	<p>PALOPAQUE™ Flat Opaque PVC Sheet</p> 	<p>PALOPAQUE™ Eco Multilayered Solid PVC Sheet</p> 
PVC	<p>PALBOARD™ Multilayered PVC Sheet</p> 	<p>PALCLEAR® Flat Transparent PVC Sheet</p> 			
Polycarbonate	<p>PALSUN® Flat Solid Polycarbonate Sheet</p> 	<p>SUNLITE® Flat Multiwall Polycarbonate Sheet</p> 			
Acrylic	<p>PALGLAS® Flat Extruded Acrylic Sheet</p> 				



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