



OCULUS Panels

PANELS

1. PRODUCT NAME

OCULUS Panels

2. MANUFACTURER

OCULUS Panels Overseas Factory

3. PRODUCT DESIGN

Basic Use :

OCULUS Aluminum Composite Panels is an extremely versatile material, particularly used for wall cladding in both exterior and interior applications.

Composition and Materials:

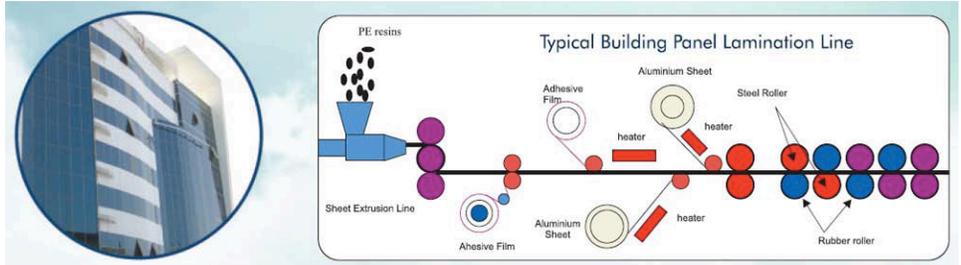
OCULUS's ACP consists of two layers of Aluminum skins, ranging in sizes, sandwiching a thermoplastic core in a continuous lamination process. OCULUS uses the world renowned "Kynar 500" resins for the exterior grade insuring long color life and uniformity with no fungal development. The adhesive film we use comes directly from Dupont.

Finish:

Our finish contains 70% PVdF resins. We offer complete custom color matching (subject to minimum order quantities).

Shapes and Fabrication:

The panels can be cut, routed, bent, rolled and formed with various tools. The common fabrication we provide would be the pan like form. This is done by routing the back edges, cutting /



trimming the corners and then bending the edges.

Sizes:

The panels are available in 3, 4, and 6mm thick, with width of 4ft and can be cut to any length.

Thickness	Aluminum Thickness	Coating	Width	Length	Application
4mm	.50mm	PVDF	4 ft	5 ft	Exterior
4mm	.25mm	PVDF	4 ft	5 ft	Exterior
3mm	.25mm	PVDF	4 ft	5 ft	Exterior
2mm	.15mm	Polyester	4 ft	-	Interior
1mm	.10mm	Polyester	4 ft	-	Interior

Standard lengths 8ft, 10ft, 12ft

4. TECHNICAL DATA

ASTM International

- ASTM B 117-Standard Practice for Operating Salt Spray (Fog) Apparatus
- ASTM C 413-Standard Test Method for Absorption of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- ASTM C 518-Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

- ASTM C 648-Standard Test Method for Breaking Strength of Ceramic Tile
- ASTM D 543-Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents
- ASTM D 573-Standard Test Method for Rubber—Deterioration in an Air Oven
- ASTM D 638-Standard Test Method for Tensile Properties of Plastics
- ASTM D 696-Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C With a Vitreous Silica Dilatometer
- ASTM D 732-Standard Test Method for Shear Strength of Plastics by Punch Tool
- ASTM D 792/792-91-Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- ASTM D 1400-Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Nonconductive Coatings Applied to a Nonferrous Metal Base
- ASTM D 2244-85/2244-89-Now known as : ASTM D523 - 08 Standard Test Method for Specular Gloss



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- ASTM D 2247-Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
- ASTM D 2794/2794-93-Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
- ASTM D 3359-Standard Test Methods for Measuring Adhesion by Tape Test
- ASTM D 3369-Standard Specification for Polytetrafluoroethylene (PTFE) Resin Cast Film
- ASTM D 4214-98-Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films (Withdrawn 2007)
- ASTM E 8-Standard Test Method for Tension testing of Metallic Materials

American Architectural
Manufacturers Association

- AAMA 610.1voluntary guide specification for cleaning and maintenance of painted aluminum

APPROVALS

OCULUS Aluminum Composite Panel meet the following standards

- ISO 9001
- ISO 14001
- OHSAS 18001
- ECCA

Physical Properties

See [Chart 1](#)

Mechanical Properties

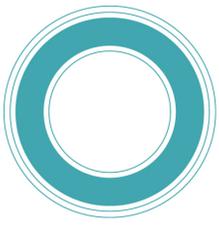
See [Chart 2](#)

CHART 1 PHYSICAL PROPERTIES

Item	Unit	Thickness			Standard
		.118in	.157in	.236in	
Density	oz/in ³	0.8786	0.7919	0.705	ASTMD792
Weight	lb/ft ²	0.933	1.123	1.504	ASTM792
Thermal Expansion (-20 - 600)	10.6/*C	22	24	25	ASTM696
Thermal Conductivity	BTUIT _{inhr-1ft-2of-1}	-	1.040021 -1.31736	-	ASTMC518
Temp for Thermal Deformation	*F	-	235.4	-	ASTMC648
Acoustic Insulation (100-3200HZ)	dB	24	26	27	ASTME413

CHART 2 MECHANICAL PROPERTIES

Item	Unit	Thickness			Standard
		.118in	.157in	.236in	
Tensile Strength	PSI	6643	6962	5540	ASTM D638
Yield Strength	PSI	6295	6411	4409	ASTM D638
Extension Rate	%	12	14	17	ASTM D638
Thermal Conductivity	X10PSI	464.12	609.16	406.11	ASTM D638
Temp for Thermal Deformation	lb	2910	3682	4674	ASTM D732



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5. INSTALLATION

Preparatory work :

The manufacturer recommends field measurement prior to fabrication. Verify alignment of surfaces before placing panel orders.

Application :

OCULUS panels/ fabricated panels can be attached to each other or to other materials by conventional methods of attachment - rivets, bolts, or screws. For interior installation, flat panels can be attached to substrates such as gypsum board using doubled-sided tape or non-hardening adhesive.

Precautions :

OCULUS panels are pre-finished architectural products requiring care in handling to avoid damage to the finish. Handle, store and install and clean panels following the manufacturer's instructions. Comply with the manufacturer's recommendations regarding expansion and contraction in detailing and installing.

6. Availability and Cost

Availability :

OCULUS panels are available worldwide. Contact regional offices of OCULUS for a director for any assistance.

Cost :

Contact regional office; costs vary due to project and panel size.

7. Warranty

Contact regional offices for information on panel and finish warranties.

8. Maintenance

Under normal exposure and use, it is self cleaning through rain washing. Manufacturer recommends an annual fresh water rinse.

9. Technical Services

Contact OCULUS Panel's regional offices for technical assistance with design and specification.

*** Additional product information can be requested from OCULUS Panels.