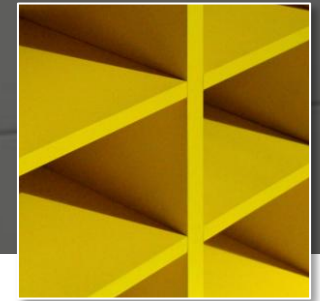


LIGHT. STRONG. BOLD.
CHALLENGING SPACE AND GRAVITY



A NEW GENERATION OF
LIGHTWEIGHT ECO-RESPONSIBLE PANELS

PANOLITE

A NEW GENERATION OF LIGHTWEIGHT ECO-RESPONSIBLE PANELS

PANOLITE™ is a lightweight composite panel made of two surface board layers and a honeycomb core. PANOLITE allies **low weight** and **high strength**, two seemingly contradictory properties that are difficult to find combined in other materials.

DESIGN

PANOLITE gives designers the opportunity to create volumes and shapes difficult to obtain with other materials. The standard **thickness of up to 3 inches**, and even more when superposing several panels, allows the creation of distinctive furniture, shelves, worktops and countertops or any contemporary architectural element.

LIGHT AND STRONG

PANOLITE is a lightweight, yet strong material. By adopting the natural design of honeycomb shaped cells, PANOLITE is using Nature's smartest design for obtaining **maximum strength with the least amount of material**.

The honeycomb structure has proven itself as the design of choice in high performance applications such as aircraft components, high-end racing skis, racing sailboat hulls or even the Hubble space telescope.

ECONOMY

PANOLITE is a very **cost effective solution** for creating elements and components at a fraction of the cost of solid wood and other solid panels. Also, the low weight of PANOLITE significantly reduces transport and handling costs of the finished product.

SUSTAINABILITY

Made of recycled natural materials and FSC® certified, PANOLITE not only offers a very high technical performance; it is also a product that is **eco-responsible and sustainable**. In fact, today, it is one of very few options for 'green' panels on the market in thicknesses above 1 1/8".

PANOLITE qualifies for up to 6 LEED points based on recycled content, local sourcing, FSC® certification as well as indoor environmental quality. Please ask us for a credit availability fact sheet.

APPLICATION

PANOLITE lightweight panels can be used in a wide variety of commercial, institutional, architectural or residential applications where low weight, high strength and thickness are required:

- kitchens
- store fixtures
- doors
- home furniture
- shelving
- architectural panels
- office furniture
- displays and signage
- suspended panels
- hospitality furniture
- dividers
- wall panels



The mark of
responsible forestry

PANOLITE

PANOLITE™ AND PANOLITE ELEMENT™ TWO PRODUCT LINES FOR COMPLEMENTARY APPLICATIONS

PANOLITE panels are composed of two surface panels glued to paperboard honeycomb core. A variety of finishes is typically applied to the surface by PANOLITE or by the customer.

PANOLITE™ STANDARD FRAMELESS PANEL



PANOLITE standard frameless panel is offered to customers who have the capacity and prefer to cut and finish the panels themselves. These panels are composed of a wide variety of surface panels such as PB, HDF, MDF and offered in broad range of finishes such as melamine, HPL, real wood veneer or unfinished blank.

PANOLITE frameless panels are offered in thicknesses from 3/4" up to 3" in typical dimensions of 49" x 97" and up to 61" x 121", depending on required material and finish.

Single pass edgebanding (2mm) and face panel hardware are applied with standard methods on panels up to 2" thick made of particleboard 3/8" surface panels, and in some other situations as explained in user guidelines.

PANOLITE ELEMENT™ COMPONENT MADE TO CUSTOMER SPECIFICATIONS



PANOLITE ELEMENT is a component made to customer specifications. It is composed of PANOLITE lightweight panel and of frame elements placed inside the panel according to customer's needs. It is available with the same variety of surface panels and offered in the same choice of finishes as PANOLITE panels. It can be specified unfinished, or factory finished and edgebanded.

PANOLITE ELEMENT is offered to customers who require the light weight and strength of PANOLITE but prefer to use and assemble components made to their own specifications.

PANOLITE ELEMENT can be used with ANY standard edgebanding and hardware in exactly the same manner as it would be used with any solid panel or solid wood.

PANOLITE™ AND PANOLITE ELEMENT™ SURFACE PANEL OPTIONS

SURFACE PANEL OPTIONS

PANEL TYPE	DIMENSION (inches)	BRAND	TOTAL PANOLITE THICKNESS BEFORE FINISH (inches)														
			3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/4	2 1/2	2 3/4	3
HDF 1/8"	49 x 97 61 x 97	Fibrex Flakeboard	●	●	●		●	●	●			●		●	●	●	●
MDF 1/4"	49 x 97 49 x 121 61 x 97 61 x 121	MDF Superior Flakeboard			●	●	●		●	●	●		●	●	●	●	●
PB 3/8	49 x 97 61 x 97	TafiPan M2 Tafisa					●	●	●		●	●	●	●	●	●	●

Options: Please inquire about other dimensions and thicknesses, other suppliers, UF free product, FSC® certified product

FINISH OPTIONS

FINISH	DETAILS	SPECIES OR SUPPLIER
Blank (unfinished)		
Veneer	All species, rotary or sliced, check availability, up to 48" x 120"	Example : Cherry, Walnut, Maple, Birch, Oak, Exotic Species
High Pressure Laminate	Check availability	
Thermofused Melamine	Minimum quantities depending on manufacturer	Tafisa or other suppliers upon request

PAPERBOARD HONEYCOMB CORE (PARTIALLY RECYCLED)

CELL SIZE (inches)	PAPERBOARD TYPE	COMPRESSION STRENGTH (PSI)	SUGGESTED USE
1/2	26 medium	38	Standard
3/8	26 medium	55	High load option
5/8	26 medium	25	Used for 2 1/2" in core height

ADHESIVE

PANOLITE uses Hot Melt Polyurethane Reactive (PUR) adhesive without Urea-Formaldehyde.



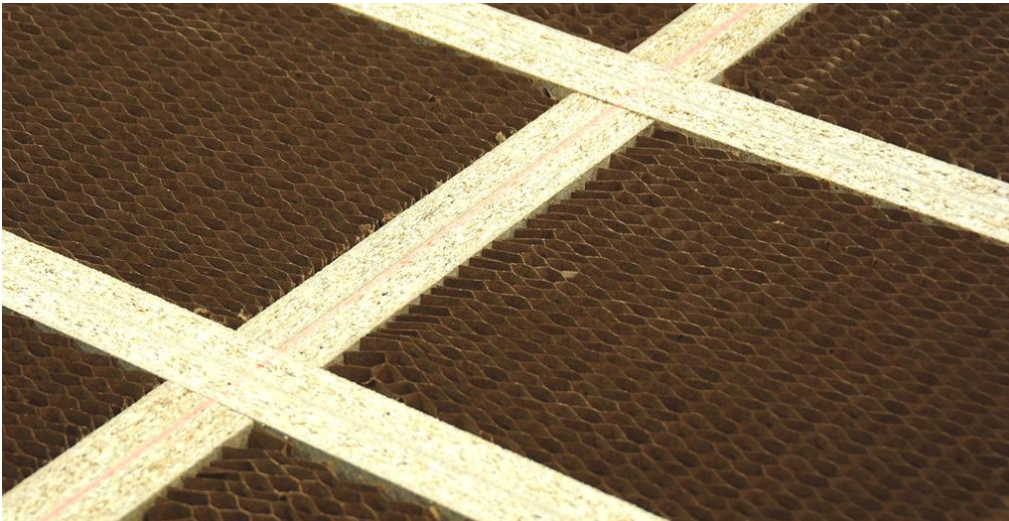
PANOLITE ELEMENT™ FRAME OPTIONS

Frame used in PANOLITE ELEMENT is typically made of particleboard.

Frame is inserted and glued to the inside face of surface panels at strategic locations specified by the customer.

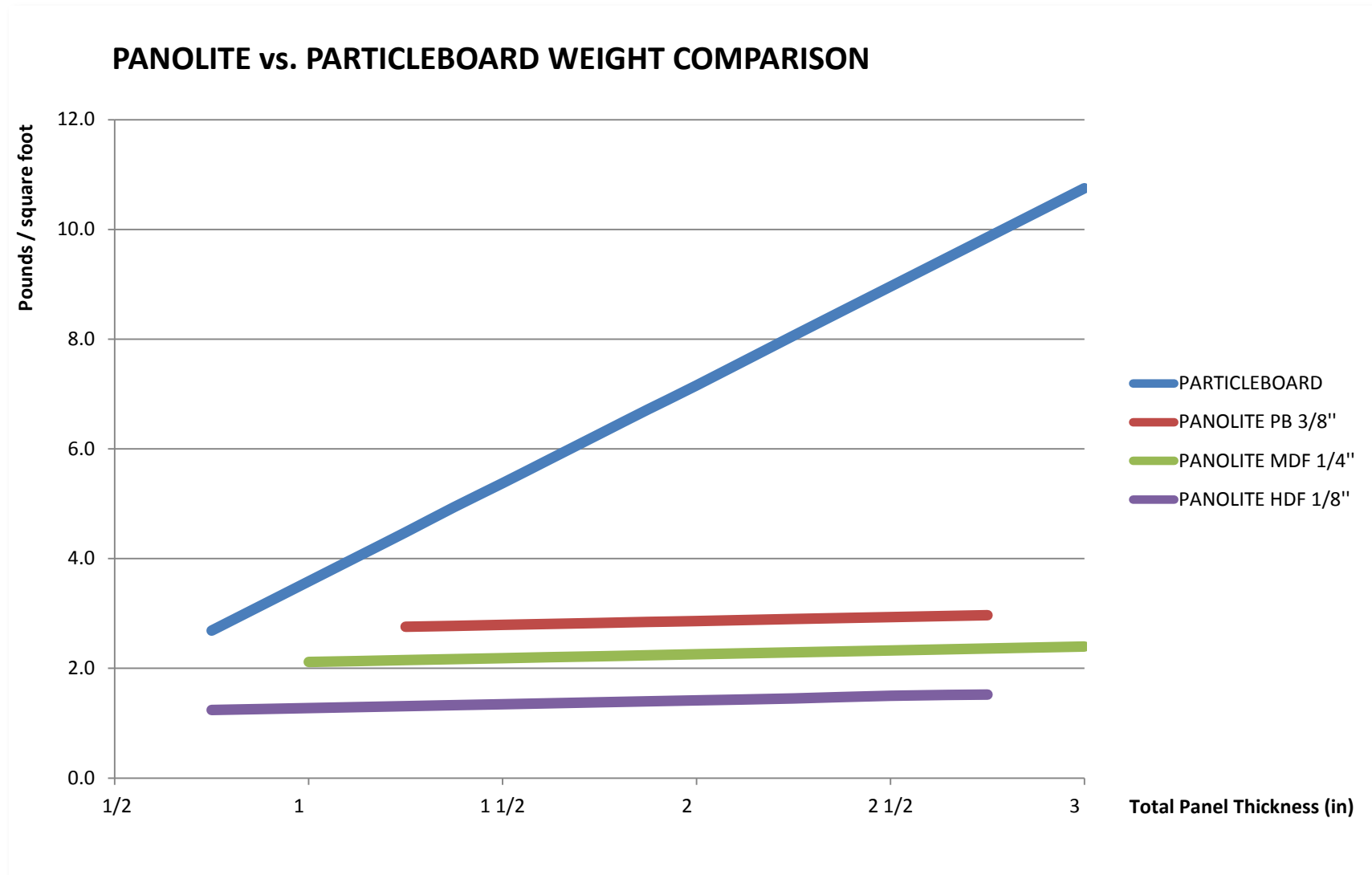
Examples of frame insertions:

- Specific location (example: table leg attachment block)
- Edge frame for strength and easy edgebanding
- Frame placed strategically in a full size panel in such a way that the user can cut through each frame, thus creating smaller components, each with a full frame on the edges (example: kitchen cabinet doors)



PANOLITE™ WEIGHT ADVANTAGE OVER SOLID PANELS

PANOLITE lightweight panels have significant weight advantage over traditional solid or wood panels.



PANOLITE™ AND PANOLITE ELEMENT™ USER GUIDELINES

PANOLITE frameless panels

Single Pass Banding

- Use 2 mm edgeband directly on edge WITHOUT any frame or support underneath the edgeband

SURFACE PANEL TYPE	MAXIMUM TOTAL PANEL THICKNESS	EDGE BAND THICKNESS
PB 3/8"	Up to 2"	2 mm
MDF 1/4"	Up to 2"	2 mm
HDF 1/8"	Up to 1 3/8"	2 mm

Note : for best results use High Strength Adhesive or call for more information

Surface Board Hardware

- Panels less than 2" thick and composed of 3/8" particleboard or MDF surface layers: Attach any face hardware with standard 10mm screws



Panels more than 2" thick or panels made with material other than 3/8" PB or MDF surface layers

- Please call for technical guidance

PANOLITE ELEMENT™ components

Any PANOLITE ELEMENT component with frames along the edges

- Edgeband with standard methods
- Attach hardware with standard methods using locations of the customer specified frame inserts.

PANOLITE™ AND PANOLITE ELEMENT™ LAMINATION GUIDELINES

- Use cold pressing only
- Do not exceed panel maximum compressive strength
- We do NOT suggest use of membrane presses
- For best results, we suggest factory applied finish layer by PANOLITE
- Please call for any other technical advice

PANOLITE™ SPECIFICATIONS

PANOLITE PANOLITE ELEMENT		
	Imperial Units	Metric Units
Moisture content	10% maximum	
Length and Width PANOLITE		
<ul style="list-style-type: none"> • Full board • Surface board 	<ul style="list-style-type: none"> • 0.2" • 0.08" 	<ul style="list-style-type: none"> • 5mm • 2mm
PANOLITE ELEMENT		
<ul style="list-style-type: none"> • Full component 	<ul style="list-style-type: none"> • 0.08" 	<ul style="list-style-type: none"> • 2 mm
Thickness Tolerance (Average from Specified) PANOLITE	<ul style="list-style-type: none"> • 0.015" 	<ul style="list-style-type: none"> • 0.4 mm
PANOLITE properties for a selected panel type: 1 3/4" (45mm) panel with 3/8" (9.5mm) Tafipan M2 surface layer at 65% RH PANOLITE ELEMENT properties generally exceed these values - contact us for more information.		
	Imperial Units	Metric Units
Modulus of Rupture (MOR) 1 3/4"(45mm) sandwich 9.5mm Tafipan M2 @65%RH	<ul style="list-style-type: none"> • 1820 PSI 	<ul style="list-style-type: none"> • 12.6 N/mm2
Modulus of Elasticity (MOE) 1 3/4"(45mm) sandwich 9.5mm Tafipan M2 @65%RH	<ul style="list-style-type: none"> • 333,500 PSI 	<ul style="list-style-type: none"> • 2300 N/mm2
Compressive Strength:Ultimate strength @ 65%RH	<ul style="list-style-type: none"> • 32 PSI 	<ul style="list-style-type: none"> • 0.22 N/mm2
Internal Bond (IB)		
<ul style="list-style-type: none"> • Unfinished particleboard/ • Melamine coated particleboard 	<ul style="list-style-type: none"> • 10 PSI • 16 PSI 	<ul style="list-style-type: none"> • 70 kPa • 115 kPa
Screwholding – Face – surface panel	<ul style="list-style-type: none"> • 202 lb 	<ul style="list-style-type: none"> • 900 N
Formaldehyde emissions (surface panel)	<0.09 ppm (CARB phase 2)	
Climatic dimensional stability : 1 3/4"(45mm) sandwich 9.5mm Tafipan M2 increase of RH from 65%RH to 95%RH over 45 days, thickness change	<ul style="list-style-type: none"> • 0.25% (face material) • 0.21% (panel) 	

PANOLITE

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Please inquire about our FSC® certified products.