

MAONE
IMAGINATION CONTINUED



STATE OF THE ART

RAW MATERIAL

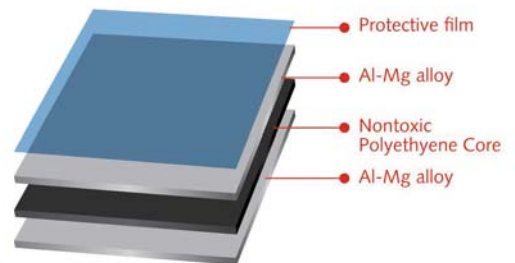
Basis aluminum: high-strength aluminum alloy
Plastic core: non-toxic low density polyethylene
Surface coating: PVDF, nanometer paint

SPECIFICATIONS

Thickness: 3-6 mm, recommended: 4 mm
Width: 1000 – 1575 mm, recommended: 1220 mm, 1250 mm, 1500 mm
Length: maximum 7200 mm, recommended: 2440 mm, 3200 mm, 4050 mm

STRUCTURE

Architecture Panel is composed of nontoxic low-density polyethylene core between two sheets of high strength aluminum alloy, with technology of continuous compositing. Because of its superior performance in rub-resist, acid-resist and alkali-resist, it is widely used as modern cladding buildings and interior designs.



ARCHITECT PANEL PHYSICAL PARAMETER

Testing item	Standard	Result
Unit Weight	ASTM D792	T4mm=5.5Kg/m ²
Coefficient Thermal Expansion	ASTM D696	196.21 x 10 ⁻⁶
Thermal Deformation Temperature	ASTM D648	271.3°C
Flexural Strength	ASTM D790	104 Mpa
Shear Strength	ASTM D732	8.9 kN
Adhesive Strength	ASTM D903	0.75 kgf/mm.
Tensile Strength	ASTM D638	46.8 Mpa
Gloss	ASTM D523	49.4
Coating Thickness	ISO 2360:2003	28 um
Coating Adhesion	ASTM D3359	5B (Best)
Scratch Hardness	ASTM D3363	H (Qualified)
Impact Strength	ASTM D2794	>1.81 kgf.m

FEATURES

1. Weather-resistance: Superior weather resistance and ultraviolet (UV) resistance, acid-resistance and alkali-resistance, suitable for all natural environments. It can be guaranteed 15 years without change of colour, its temperature range from -40 to 80;

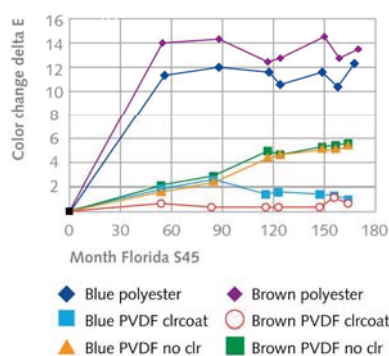
Quality

The fully automatic coil coating process is computer controlled throughout all stages. Coating quality is tested according to the standards established by the ECCA. The long-term durability of coatings can be compared by measuring

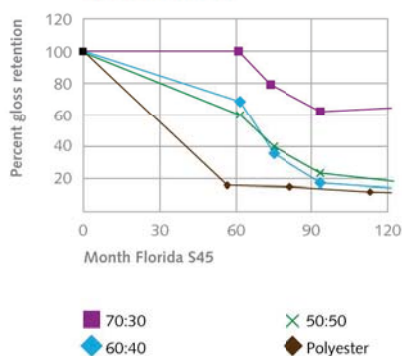
- Colour change
- Gloss retention
- Elongation

The superiority of MAONE Ultra-Coat UV resistant lacquer systems (PVDF) is shown in three graphs. The values indicated are taken from tests conducted by the American Architectural Manufacturers Association (AAMA) on lacquered surfaces which were exposed to the extreme climatic conditions of South Florida for several years.

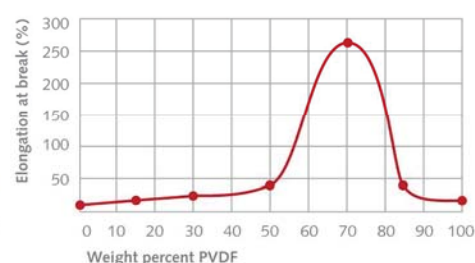
Color Change



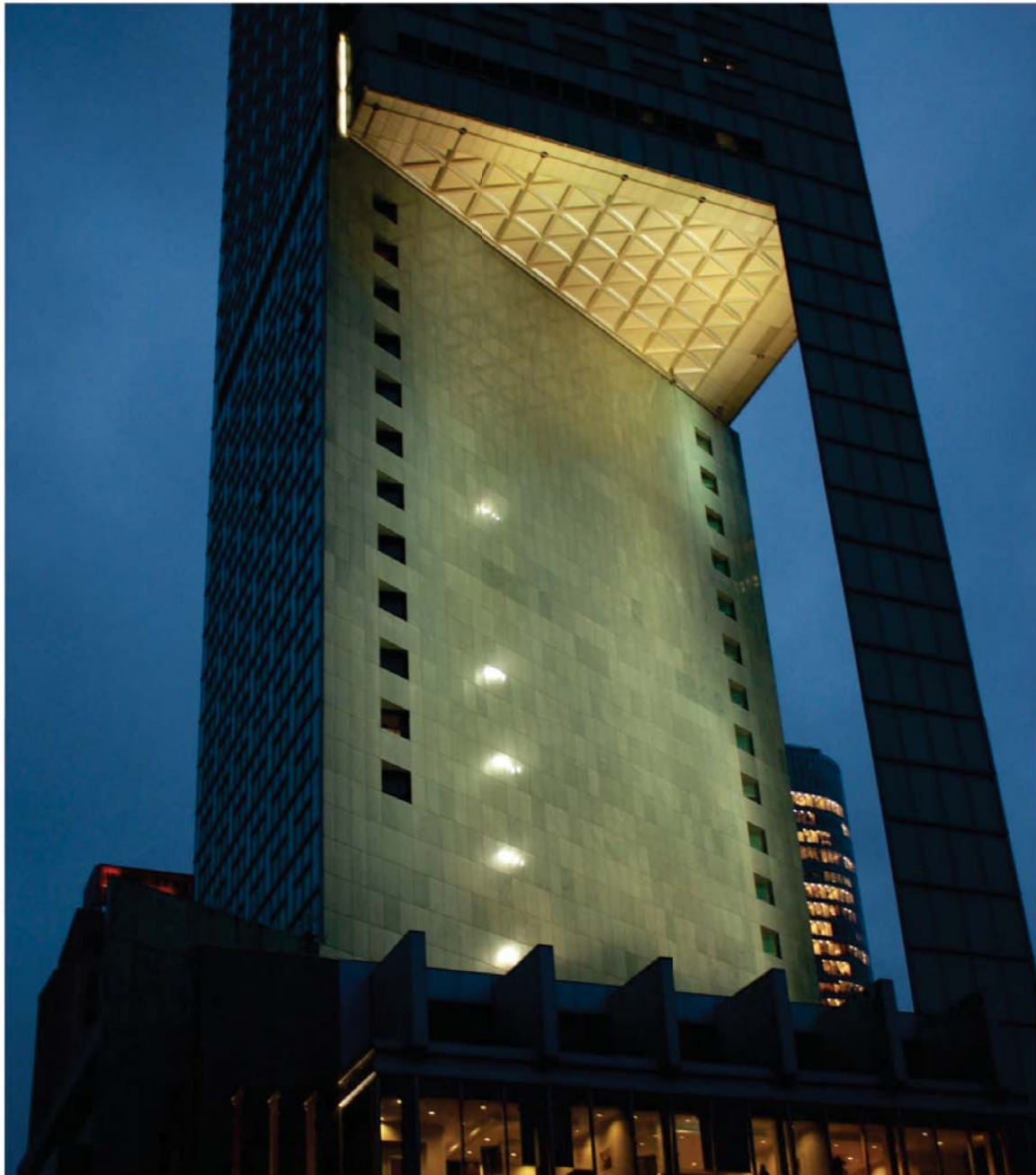
Gloss Retention: Effect of PVDF

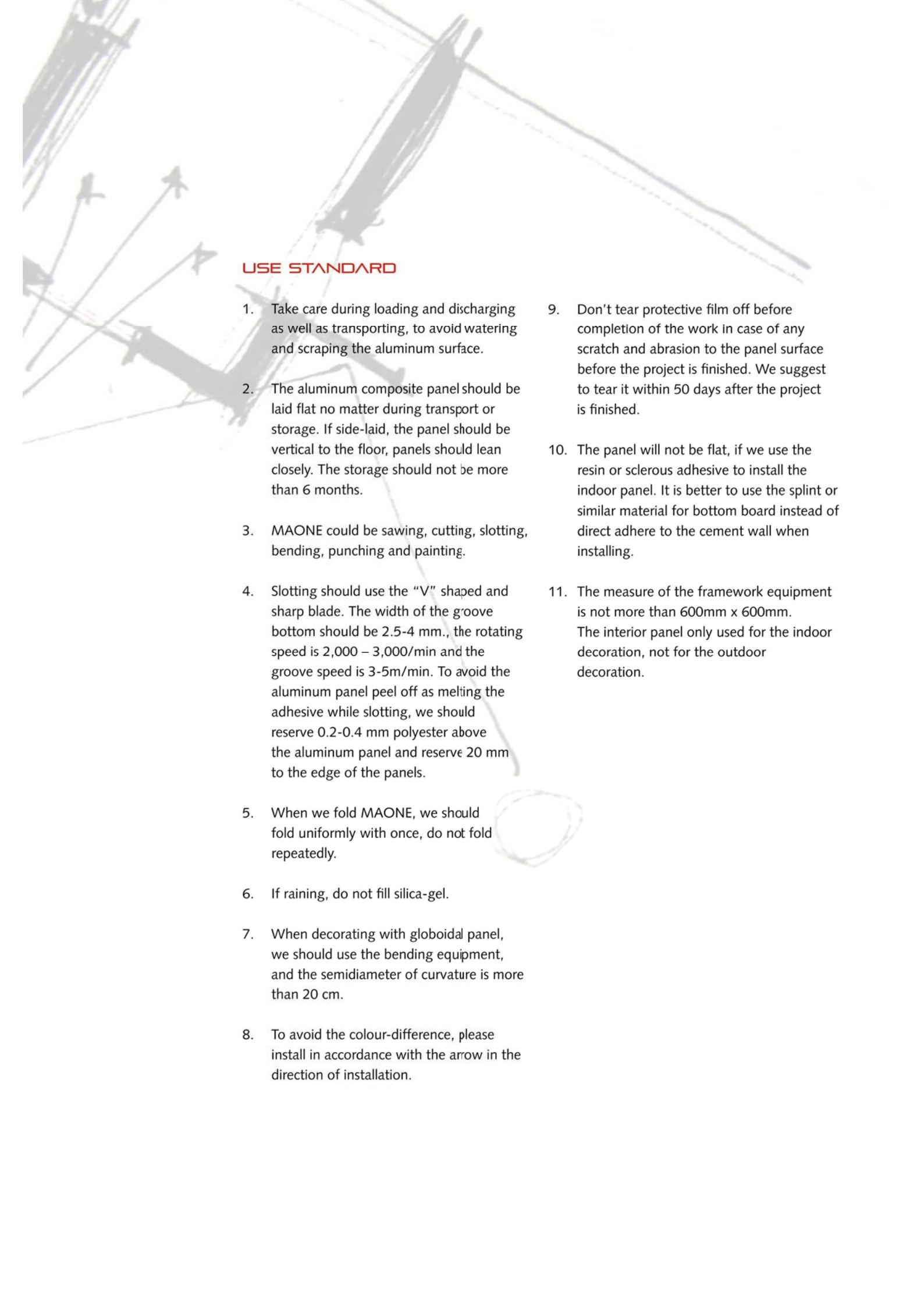


Elongation



4. Environment: Superior ageing resistance, no coating change, no pollution, anti-acid and anti-alkali, solvent resistance.
5. Colour: We can provide more than 50 kinds of colours of your choice as well as customised colour for the specific requirements.
6. Strength: The ACP use high quality aluminum , has greatly enhanced the strength of ACP, ensuring that the curtain wall wind pressure resistance, prevention of leakage, and the shock effect.
7. Surface smooth: The fire-resist ACP provide superior and smooth surface, satisfying the modern building on the pursuit of high-perception. The ACP's surface is much more smoother than aluminum sheet.



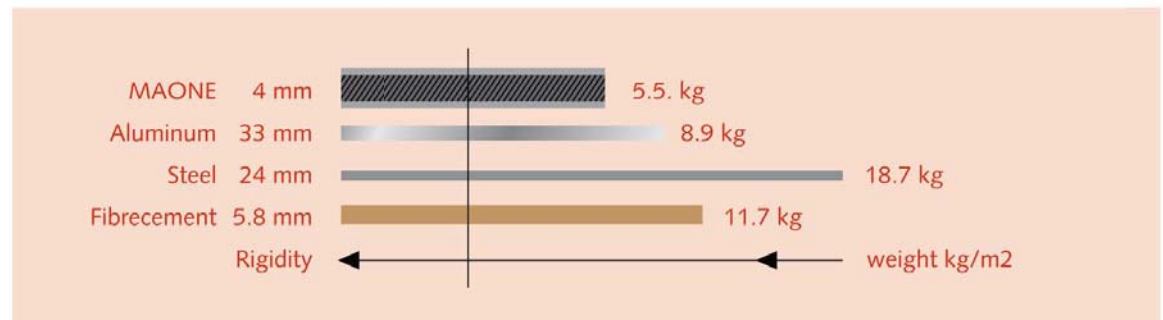


USE STANDARD

1. Take care during loading and discharging as well as transporting, to avoid watering and scraping the aluminum surface.
2. The aluminum composite panel should be laid flat no matter during transport or storage. If side-laid, the panel should be vertical to the floor, panels should lean closely. The storage should not be more than 6 months.
3. MAONE could be sawing, cutting, slotting, bending, punching and painting.
4. Slotting should use the "V" shaped and sharp blade. The width of the groove bottom should be 2.5-4 mm., the rotating speed is 2,000 – 3,000/min and the groove speed is 3-5m/min. To avoid the aluminum panel peel off as melting the adhesive while slotting, we should reserve 0.2-0.4 mm polyester above the aluminum panel and reserve 20 mm to the edge of the panels.
5. When we fold MAONE, we should fold uniformly with once, do not fold repeatedly.
6. If raining, do not fill silica-gel.
7. When decorating with globoidal panel, we should use the bending equipment, and the semidiameter of curvature is more than 20 cm.
8. To avoid the colour-difference, please install in accordance with the arrow in the direction of installation.
9. Don't tear protective film off before completion of the work in case of any scratch and abrasion to the panel surface before the project is finished. We suggest to tear it within 50 days after the project is finished.
10. The panel will not be flat, if we use the resin or sclerous adhesive to install the indoor panel. It is better to use the splint or similar material for bottom board instead of direct adhere to the cement wall when installing.
11. The measure of the framework equipment is not more than 600mm x 600mm. The interior panel only used for the indoor decoration, not for the outdoor decoration.

2. Economic: The ACP use high quality aluminum sheet and plastic core, it's light to transport, and saving project time.
3. Lightweight: No pollution, green building decorative material; can be easily processed and installed; lightweight, good strength and flexibility.

COMPARISON OF THICKNESS AND WEIGHT OF PANELS WITH EQUAL RIGIDITY.

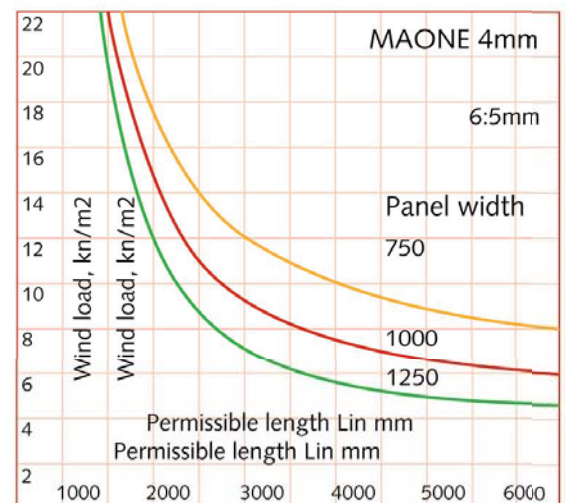
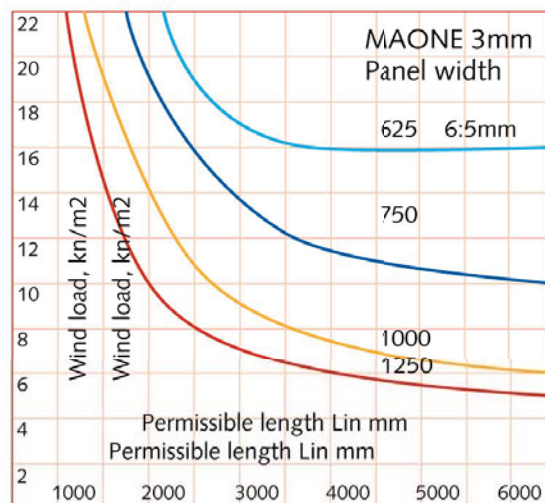


MAONE COMPARED WITH THE SOLID ALUMINUM PANEL

Required thickness and actual weights of panels with same rigidity

Rigidity Section Modulus		Thickness		Weight	
E.J.	W			Aluminum	
				Thickness	Weight
125 kn cm ² /m	1.25 cm ³ /m	3 mm	4.5 kg/m ²	2.7 mm	7.3 kg/m ²
2400 kn cm ² /m	1.75 cm ³ /m	4 mm	5.5 kg/m ²	3.3 mm	8.9 kg/m ²

WIND LOAD AND PERMISSIBLE PANEL SIZES



The graphs for 3 mm and 4 mm thick MAONE indicate the maximum permissible panel length (without having to add a stiffener) based on applicable design wind load and panel width.

Note:

- Permissible stress = 53N/mm² (includes safety)
- Values apply to 4-side supported panels • Values for other systems on request

