



ALUMINIUM HONEYCOMB PANEL

Enlight Your Inspiration

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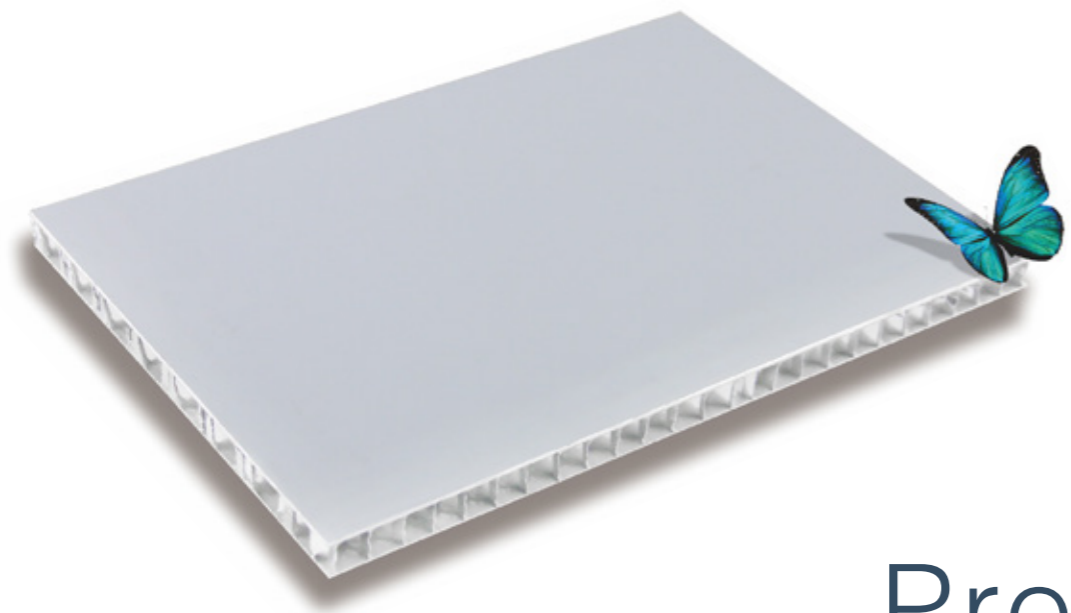
WISDOM METAL COMPOSITES LTD

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Product Description

The aluminium sandwich panel boasts exceptional flexural strength while maintaining an ultra-low weight. Unlike traditional honeycomb composite panels, this material is not brittle-hard but possesses a viscoelastic nature, characterized by unparalleled peel strength values. It seamlessly integrates high mechanical properties, including the tensile strength of its cover sheets, with remarkable processing capabilities and aesthetic appeal.

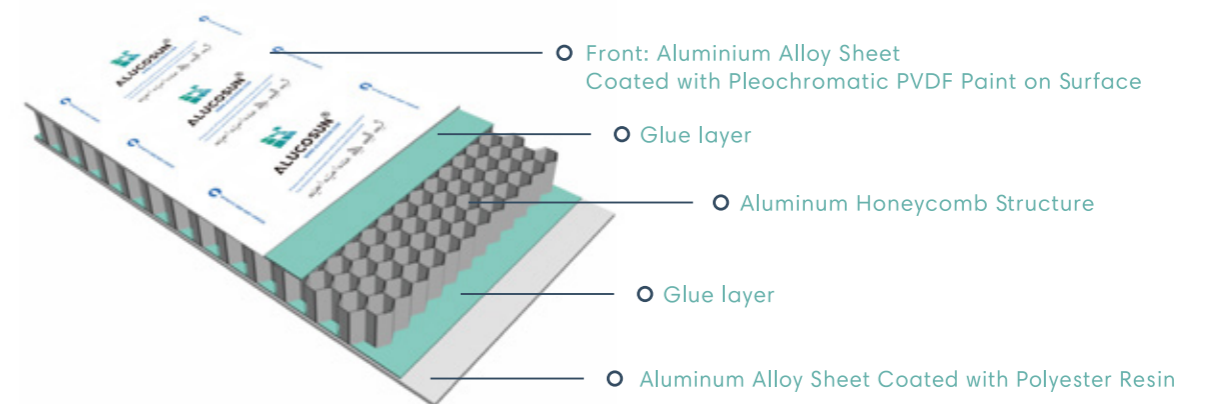
Utilizing a continuous manufacturing process, we can produce large-sized panels up to 9 meters in length, ensuring superior flatness. These impeccably precise panels are easily achievable across a diverse range of applications using standard equipment. Owing to its unique properties, it is suitable not only for exterior applications like façade cladding, roofing, balconies, and the like, but also for interior applications such as ceiling panelling and industrial uses.

Beyond its lightweight and ultra-flat design, the honeycomb composite panel also excels in its high weather resistance. With regard to surface treatments, only top-tier lacquering systems are employed to guarantee optimal weatherproofing and resilience against industrial pollution.

STRUCTURE

Alucosun® aluminium honeycomb panel is composed of two aluminium sheets and a honeycomb aluminium core, which is like so many I-shaped beams distributing the pressure from different directions to well assure the flatness of the plane even in very large area.

Thanks to its unique structure, honeycomb has an impressive behaviour in anti-load.



Dimensions

| Standard Thickness (mm) | Standard Width (mm) | Standard Length (mm) |
|---|---------------------|----------------------|
| 10 | 1250 | 2500/3200/4000 |
| 10 | 1500 | 2500/3200 |
| 15 | 1250 | 2500/3200 |
| 15 | 1500 | 2500/3200 |
| 20 | 1500 | 2500/3200 |
| 25 | 1500 | 2500/3200 |
| All standard formats available from stock | | |

● Upon Request: Special Thickness /Width /Length

— Test Report

| Item | Unit | Alucosun | | | |
|------------------------|---------|-----------------------------|--------|--------|--------------|
| Standard thickness | mm | 10 | 15 | 20 | 25(max 50mm) |
| Front skin thickness | mm | ≥0.8 | | | |
| Rear skin thickness | mm | ≥0.7 | | | |
| Panel size | mm | Width:≤2000 Length:≤3000 | | | |
| Weight | Kg/m² | 5.0 | 6.7 | 7.0 | 7.3 |
| Rigidity | kNcm²/m | 21900 | 75500 | 138900 | 221600 |
| Modulus of elasticity | N/mm² | 70 000 | | | |
| Cell size | mm | 6mm-12mm | | | |
| Sound reduction index | dB | 15 | 22 | 23 | 25 |
| Thermal resistance | m²k/w | 0.0063 | 0.0084 | 0.0089 | 0.0093 |
| Temperature resistance | °C | -40 to +80 | | | |



• WARRANTY •

The standard warranty is 15 -20 years depends on the locaiton of exact projects.
30 years warranty is available for high- qualified surface finished products.

Various color and finish options make Alucosun Latest® a favorite choice of building envelope. Variety of spectra, durability of the paint systems, quality of the finish etc. makes it a suit to any application of cladding whether it is a commercial building, iconic structure with unique identity or an established brand. Alucosun Latest® offers a variety of standard and custom finishes out of in-house coil coating facility. Alucosun Latest® is surface finished with PVDF and NANO paint system in continuous coil coating process which ensure quality and consistency in compliance with AAMA 2605 specification.

PVDF paint system with composed 70% PVDF resin is known for high resistance to UV rays and environmental effects therefore Alucosun® is durable and consistent performance in extreme weather conditions.

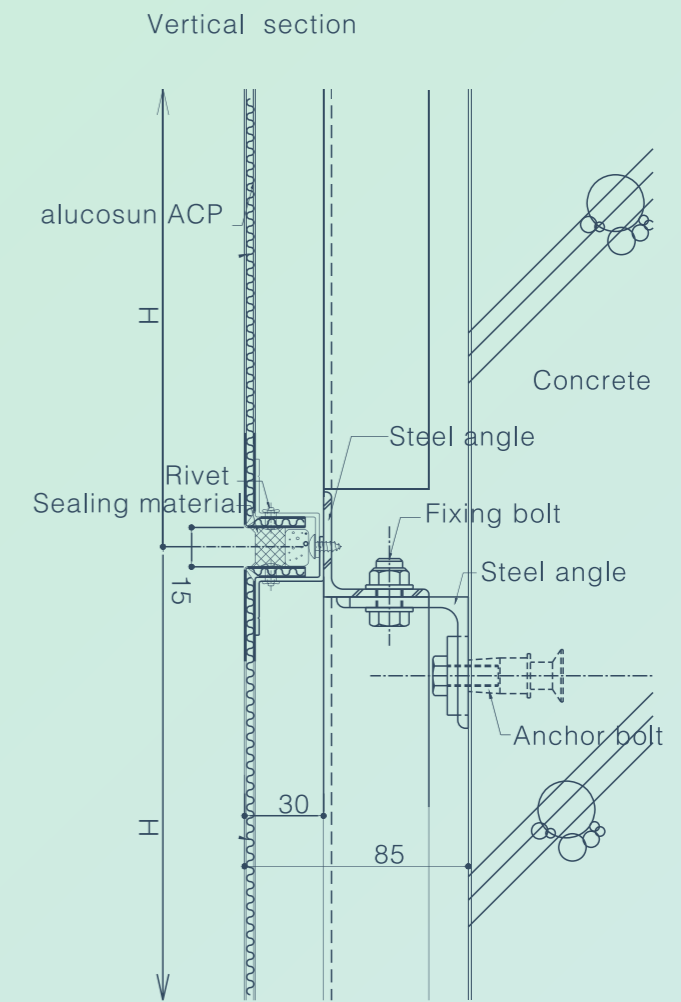
NANO-PVDF is a self-cleaning paint system. Such Paint system provides an additional clear top coat with highly cross-linked NANO particles on PVDF finish; which ensures smooth surface. Smooth and clear surface makes dirt and dust difficult to stick on which gives the building an always clean look. PVDF and NANO paint systems are highly durable assures 15-20 years of finish warranty.

ANODIZED panels with various finish options are available in Alucosun® however it is subject to certain time and size limitations. Naturally protected by anodized layer panels are highly durable scratch resistant provides warranty about 30 Years.

PE and HDPE paints are used widely in many applications thanks to the extensive ranges of colors and economy-consideration, now the guarantee years can be extended from 5 years to 8 years with the different types of coating. HDPE finishes are also available as custom paint system.



TYPICAL FIXING



HORIZONTAL SECTION

