



WISDOM METAL COMPOSITES LTD

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ALUMINIUM COMPOSITE PANEL

Enlight Your Inspiration

SIGNAGE



- Protective Film
- PE Paint Finish
- Aluminium Skin
- Adhesive Film
- Polyethylene Core
- Adhesive Film
- Aluminium Skin
- PE Paint Finish
- Protective Film

Product Structure

Alucosun Sign® aluminium composite panel is composed of two aluminium sheets and polyethylene core that are laminated in the continuous process with high temperature.

Surface Properties

Paint Thickness (micron)	18-20um
Pencil Hardness	2H
Toughness of Coating	2T
Temperature Resistance	-40°C ~ +80°C
Impact Strength (Kg/cm2)	50kg/cm2
Boiling Water Resistance	2hrs, no change
Acid Resistance	5% HCL, 24hrs no change
Alkali Resistance	5% NaOH, 24hrs no change
Oil Resistance	20# engine oil, no change
Solvent Resistance	200 times by MEK
Cleaning Resistance	> 1000 times without change
Peel Strength 180°	> 5 Newton/mm
Alloy Type	AA3003 / AA1100
Paint System / Method / Spec	Polyester / Coil Coating / AAMA
Gloss @ 60°	70% – 100 %
Matte Degree	20% – 40 %
Sound Transmission Loss (dB)	23 – 25
R Value (M²K /W)	0.0045 0.0078 0.0110
U Value (W/M²K)	5.7 5.6 5.5
Liner Thermal Expansion	2.4 mm /m @ every 100 ° C

Panel Dimensions

Item	Range	Standard Size
Panel Thickness(mm)	2-8	2, 3, 4, 6
Aluminium Skin Thickness(mm)	0.1-0.5	0.12, 0.15, 0.21, 0.30
Width(mm)	1000-2000	1220, 1250, 1500, 2000
Length(mm)	≥1000	2440, 3050, 3660, 4050□ 6010

Dimensional Tolerances

Thickness (mm)	-0 + 0.2
Width (mm)	± 2
Length (mm)	± 3
Diagonal (mm)	± 5
Bow Maximum(mm)	≤5
Squareness Maximum(mm)	≤5

STANDARD GLOSS RANGE

STANDARD MATTE RANGE

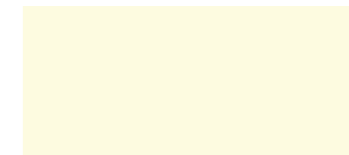
AC 3016 Gloss White
RAL 9016 / 1431



AC 8016 Matt White
RAL 9016 / 0026



AC 8003 Light Ivory
RAL 1015 / 1546



AC 3004 Traffic Grey
RAL 7042 / 0024



AC 8004 Traffic Grey
RAL 7042 / 0338



AC 8005 Traffic Green
RAL 6024 / 0317



AC 8006 Moss Green
RAL 6005 / 1498



AC 8007 Ultramarine Blue
RAL 5002 / 1523



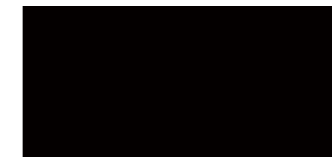
AC 3008 Blue
RAL 5022 / 0328



AC 8008 Blue
RAL 5022 / 0327



AC 8009 Jet Black
RAL 9005 / 0321



AC 8010 Traffic Red
RAL 3020 / 1454



AC 8011 Purple Red
RAL 3004 / 1459



AC 8012 Traffic Yellow
RAL 1023 / 1542



AC 8013 Orange
RAL 2004 / 1510



AC 8014 Grey
RAL 7016 / 1455

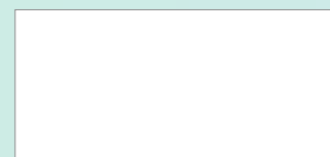


AC 8015 Silver Metallic
RAL 9006 / 0313



DIGITAL PRINTABLE WHITE SERIES

AC 3002 Digital White
/ 1205



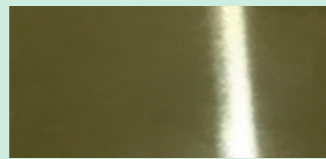
Alucosun never stop innovation step, After 1G and 2G technology, now we invented the 3G to adapt the new LED cold-light curing technology to compatible for all type of ink printers, We also have one series of product with high glossy white can be printable also!



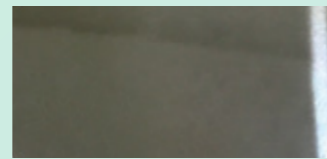
ALUCOSUN

Mirror Series Anodized

AC 0001 Silver Mirror



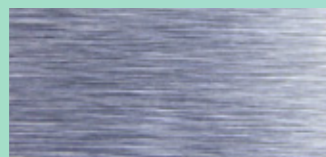
AC 0002 Gold Mirror



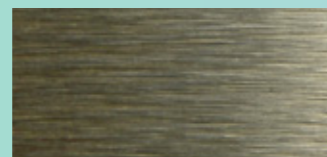
Anodized colors with amazing looking offer you to express your own way to show beauty!

Brushed Series

AC 4001 Silver Brushed 401



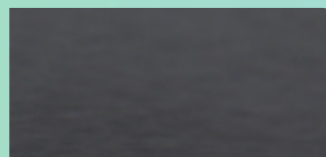
AC 4002 Gold Brushed 402



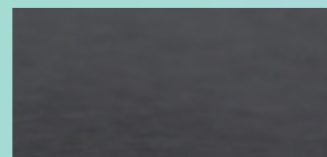
AC 4003 Copper Brushed 403



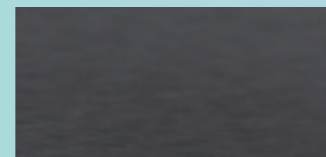
AC 4004 Black Brushed 405



AC 4005 SS Brushed 404



AC 4006 New Copper Brushed 406



Brushed series in different colors , we also offer all brushed colors in digital printing function for advertising use !

WHY CHOOSE ALUCOSUN



/ DIVERSITY

Varitey of colors with a huge spectra of standard and custom colors , together with matt and high gloss finishes. mirror and brushed finished as well Also Alucosun is the first producer who offers wider panels (2000mm) supports wide format printing.



/ EASY PEEL FILM

Unique Easy Peel Protective Film which can be easily removed whenever you use. Panel surface will not hold any crease at a stop of a removal process. Viscosity of the Film does not deviate over time results in increases shelf-life of Alucosun Sign® .



/ RELIABLE QA SYSTEM

Well established and documented QA system ensure quality of the product we deliver. Achieved by perfectly combining the full-fledged Laboratory with skilled workforce. Every batch of production is tested at a regular interval of time samples and reports are kept recorded in safe custody for future tracking.



/ SHORTER LEAD TIME

We are working round the clock with ample stock of Raw Materials for various specification to serve our clientele across the globe. Additionally, we are strategically located in proximity to the sources which enable us to do custom products as well, makes our lead time shorter than many other manufacturers.



/ INNOVATION

We made significant contribution to the Signage industry by developing a new product. Our R&D division in cooperated with local PPG manufacturing facility to develop a special PE paint which can be compatible with all types of Digital Printing machines. Meanwhile, we are harding working in developing new product which more lighter and saftey for our clients .

APPLICATION

Alucosun Sign® panels are used in various applications people encounter in daily life. It is a useful and versatile product in signage and advertising industry for magnificent creations.

▲ SIGN MAKING AND SHOP FITTING

Thanks to the outstanding flexibility and formability of Alucosun Sign® PE, it suits itself extremely well in the manufacture of signage, displays, exhibition stands, etc.

▲ INTERIOR DECORATION

Alucosun Sign® PE, PPG guaranteed paint, with various color and gloss options, gives the ideal solution for interior decorations.

▲ LED/ UV DIGITAL PRINTING

Alucosun Sign® offers both UV digital printing and LED printing. It can compatible for all types of printing machines, the panel surface also capable for LED digital printing. For sure, the LED printing technology can save 50% energy. The LED light cost can be use for 4000 hours, also environment- friendly, more stable, easy operation. It should be the trend for printing industry.



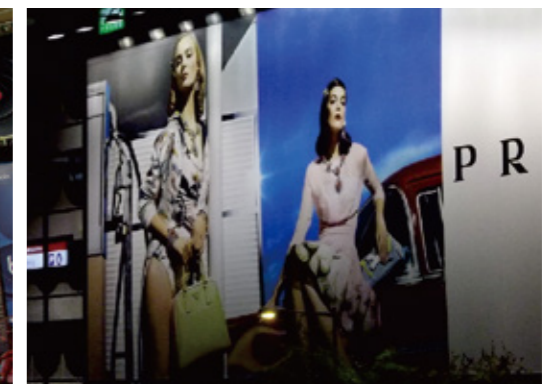
INDOOR DECORATION



SIGN & DISPLAY



DIGITAL PRINTING



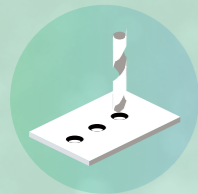
● WARRANTY ●

All Alucosun Sign® finishes come for 5 years warranty for external use. The brushed and mirror finishes with different procedure are not guaranteed for outside application. For exact color guarantee kindly contact us for detail.

PRODUCT PROCESSING

1 Drilling

Alucosun Sign® is easily drilled - For best results, use drill bits specifically designed for drilling aluminium and plastic. For large holes, a drill bit with a locating point is required.



Cutting angle : 100° - 140°
Helix angle : 30° - 50°
Cutting Speed : 50 - 300 m/min
Feed Speed : 0.02 - 0.5mm / Revolution
Hole Size : Screw width + 2mm

2 Sawing and Cutting

Circular Saw : Trapezoidal / Flat tooth blade. Flat teeth chamfered at 45°, Carbide tipped.

Saw blade diameter : 300mm

Number of teeth : 72 for cutting up to 5 panels
 96 for single cuts avoiding burrs

Saw blade diameter : 250mm

Number of teeth :

60 for cutting up to 5 panels
 80 for single cuts avoiding burrs

Tooth Thickness : 3.2mm

Clearance Angle : 15°

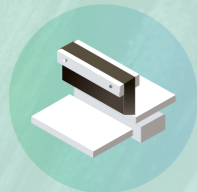
Rake Angle : 10° positive



3 Shearing

Use a standard guillotine for this purpose.

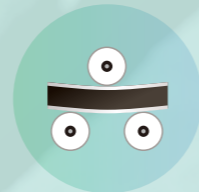
Ensure the top cover sheet is inserted properly.



4 Cold roll-in

Use adjustable pressure machine, smooth circular cylinder roller pressure molding.

Operation should pay attention to when it does not hurt the surface.



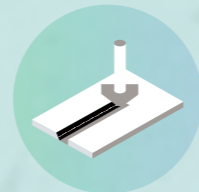
1 Routing

Alucosun Sign® can easily be folded by hand if a "V" shaped groove is milled on the rear of the panel. This can be done using a conventional router (available from your local DIY store) or CNC milling machine. A minimum of 0.30mm Polyethylene should be left on the back layer when routing to avoid sharp corners or paint chipping.

Sharp tools must be used in order to avoid damaging the edge of the material.

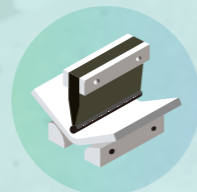
Cutting Speed : 3000 - 5000 m/min

Feed Speed : 25 - 30 m/min



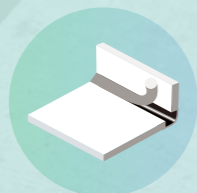
2 Bending with a Panel Folder

Use a folding table. Min inside radius $r=40t$ (t =panel thickness.)



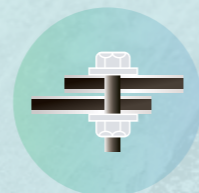
3 Hot Air Welding

A polyethylene welding rod is available for use with an electric hot air welding set.



4 Bolt Joint

Considering the deformation limit, $e \leq 2D$ is the best way to calculate the hole diameter D and the distance from the hole center to the Panel end.



OUR EXPERTISE

From the very beginning, Alucosun Sign® has been always keeping its eyes open for the whole way , from the adoption of the raw materials to the end products, which are all fulfilled by the quality control system -- perfectly composed of professional inspectors and advanced laboratory apparatus, assuring all the products in accordance with international standards.

Alucosun Sign® team is committed to support our customers by providing the on time delivery of superior reliable products and services of exceptional value. All of these factors can assist in gaining the competitive advantage in your market. We aim to sustain our vision and mission by constantly seeking improvement and development via continuous education and learning.

We invite you to put our products for testing, you will get more than you expected!



“
**NOT ONLY APTITUDE
 BUT ALSO ATTITUDE
 DETERMINE
 OUR ALTITUDE**
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