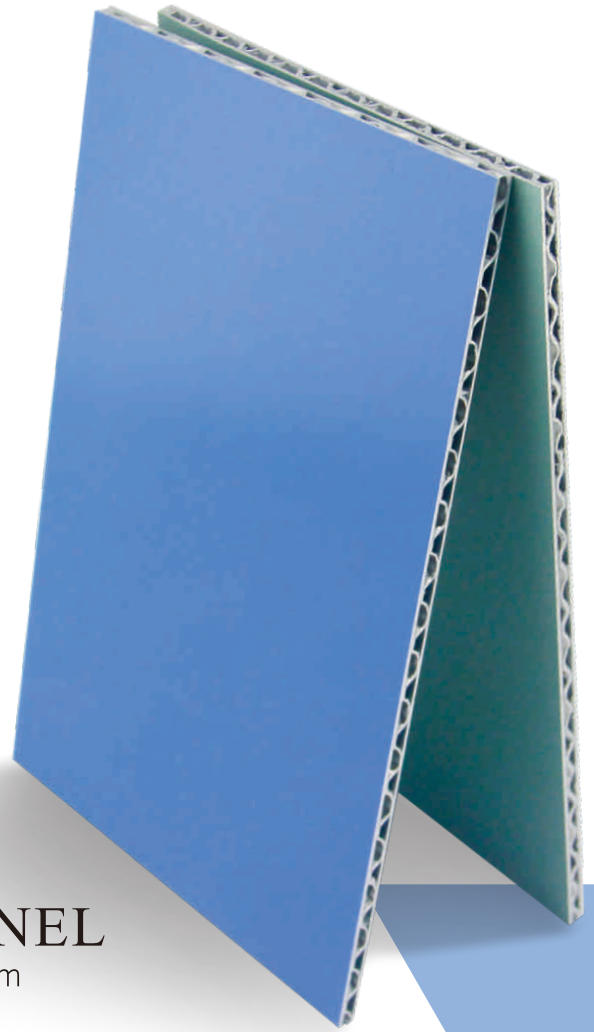


ALUMINIUM LATTICE PANEL

A2 NON-COMBUSTIBLE PANEL
Designer Series An Architect's Dream



SKY RAINBOW

ALUMINIUM-PLASTIC COMPOSITE PANEL

DESIGNER SERIES AN ARCHITECTS DREAM



ABOUT US

JIANGYIN HRL NEW MATERIAL TECHNOLOGICAL CO.,LTD. a pioneer manufacturer in aluminum composite panel industry, is equipped with:

1 adhesive film line;

2 coating lines;

6 lamination lines ---- one is of extreme 2000mm width set up firstly in China.

With over 20 years' experience, we have successfully stretched our bones all over the world by providing our clients with quality and innovative products:

Sky Rainbow® Aluminum composite panel

Sky Rainbow® Aluminum Lattice composite panel

Sky Rainbow® Aluminum honeycomb panel

Sky Rainbow® Steel composite panel

All above Sky Rainbow® products are born in wide applications, such as interior decoration, cladding construction, elevator fabrication, transportation vehicles constitution and so on.

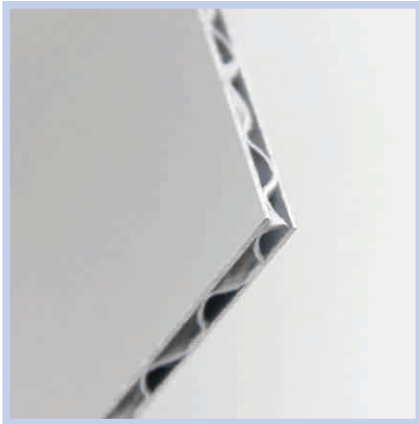
Sky Rainbow® commitments to the total fulfillment of our clients' expectations are achieved by a complete quality control system, beginning at the point of raw materials acquisition all the way through to delivery of the final guaranteed products. All activities are ensured by the professional QC team and delicate laboratory equipment in line with various international standards: European Germany DIN, Commonwealth UK BS, American ASTM, Middle East, etc. Furthermore, it is non-negotiable that all our products are environmentally friendly, compliant to RoHs, Reach and Green Leaf.



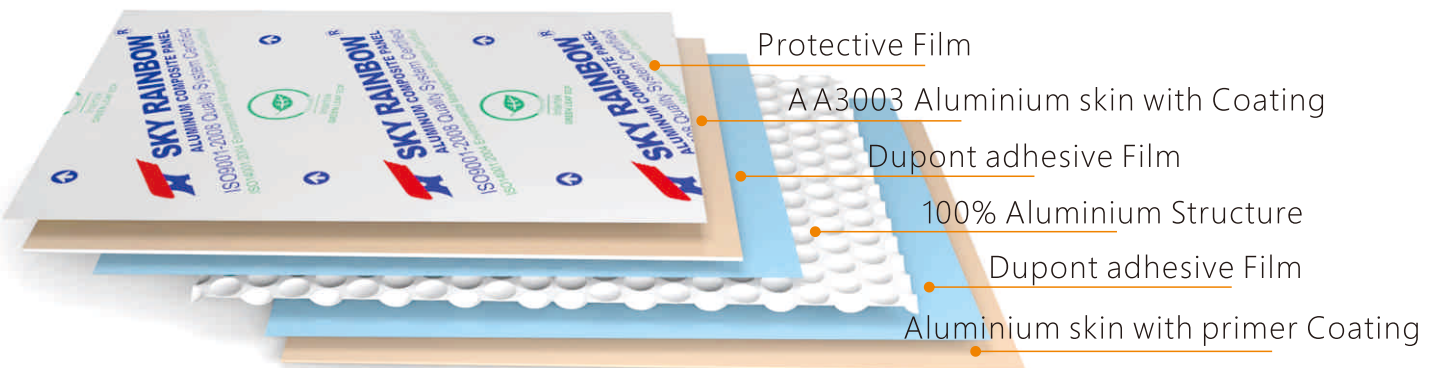
PANEL INTRODUCTION

SkyRainbow® aluminum lattice composite panel looks no difference from the traditional fire-proof aluminum composite panel. What makes it different indeed is the technology of the core, which is constructed from a 100% aluminum structure instead of combustible material.

The 100% aluminum core makes the panel achieve A2 S1-d-0 when tested to EN 13501-1. Further, it is much lighter but higher rigidity than traditional ACP. Needless to say, it still keeps all the advantages of traditional ACP.



PANEL STRUCTURE



DIMENSIONS

Thickness	4mm
Width	1250mm, 1500mm
Surface Aluminium sheet thickness	0.5mm or 0.7mm
Back aluminium sheet thickness	0.4mm or 0.5mm
Length	2440mm, 3050mm, 3200mm, 4000mm, 5000mm
Weight	4.3kg/m ² based on 0.7/0.5/4mm thickness

TOLERANCE(mm)

Thickness	±0.2	Width	±2	Length	±3	Diagonal	±5
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European Union EN 13501-1 Classification

Fire Behaviour	Smoke Production		Flaming Droplets	
A2	S	1	d	0

ADVANTAGES

- Non-combustible with A2 grade;
- Light weight yet high rigidity;
- Diverse colors & finishes;
- Excellent mechanical formability;
- High resistance to weather and pollution;
- Trouble-free maintenance.



Physical Property of A2 PANEL

Item	Standard	Result
Impact resistance	ASTM D2794-93	125 kg•cm
Tensile strength	ASTM E8/E8M-16a	177 MPa
Elongation	ASTM E8-04	16%
Yield strength	ASTM E8/E8M-16a	148MPa
Flatwise tensile strength	ASTM C297/ C297M-16	1.26 MPa



FIRE TEST

The test results were shown in Table below

Method		Parameter	Result
EN ISO 1716	PCS	Paint, MJ/m ²	1.3
		Aluminium substrate, MJ/kg	0.0
		Adhesive, MJ/m ²	2.3
		Aluminium Sheet, MJ/kg	0
		Adhesive, MJ/m ²	2.3
		Aluminium substrate, MJ/kg	0
		Paint, MJ/m ²	0.4
		The whole product, MJ/kg	1.4
EN 13823		FIGRA, W/S	0
		THR _{600s} , MJ	0
		LFS, m	<Edge of Specimen
		SMOGRA, m ² /s ²	0
		TSP _{600s} , m ²	7
		Flaming Droplets/ Particles	No flaming droplets/ particles occur within 600s



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PROJECT CASE

PVDF:

Sky Rainbow® PVDF (polyvinylidene fluoride) adopts PPG & Becker Kynar500 & Hynar5000 paint, which is mainly composed by PVDF resin (at least 70%), Acrylic resin and toner.

PVDF 2 coatings is composed of primer and top coat with total thickness of $26 \pm 1 \mu\text{m}$ while PVDF 3 coatings includes primer, top coat and clear coat with total thickness of $32 \pm 1 \mu\text{m}$. It ensures durable resistance to weather, chemical, pollution and radiation. It also provides excellent surface flexibility not to crack and peel off under correct fabrication.

The standard warranty is 15~20 years based on the specific location. Its superb performance in color retention, color adhesion and chalk resistance has been proved for more than 40 years and is still being tested in Florida exposure base.

NANO-PVDF:

PVDF coating comprises a highly cross-linked surface, which means dirt retention on the surface is minimal. NANO-PVDF, with NANO coat on top of PVDF coat, fills the surface to be smooth, making dirt and oils difficult to stay in and also protect the PVDF coat from UV rays. Thus, NANO-PVDF behaves better in weather-resistance, pollution-resistance and self-cleaning than PVDF.

The standard warranty is 15~20 years based on the specific location.

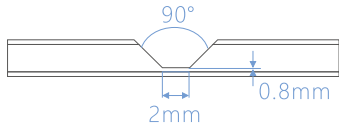
Anodized:

Anodizing is an electrochemical process, not an applied coating. The surface of the aluminum is converted to an aluminum oxide as a result of reactions occurring in an acid and electricity. It uses everyday light to create shimmers and other arresting effects that change from every angle and reward every glance. Naturally protected by the anodic film, it creates a durable, low-maintenance finish. It is scratch-resistant and will never chip, flake or peel.

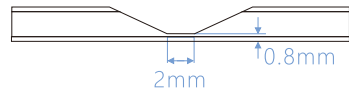
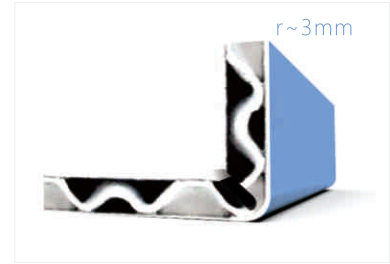
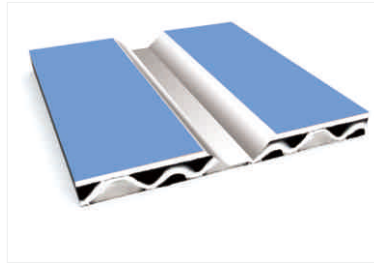
The standard warranty is 20~30 years based on the specific location.



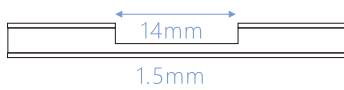
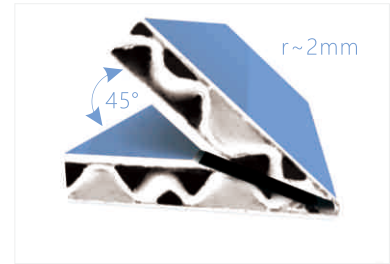
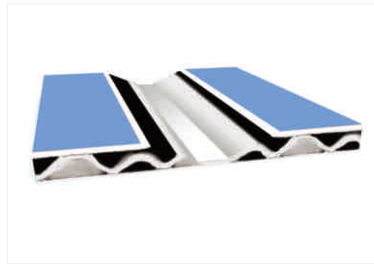
GROOVING



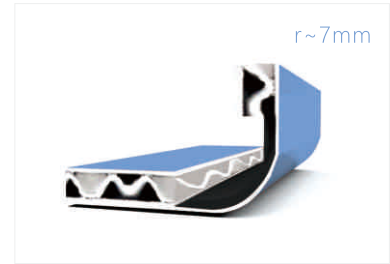
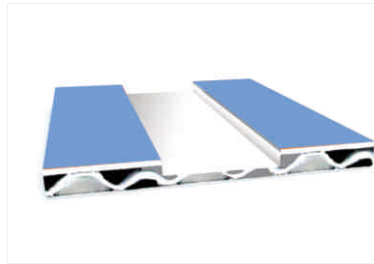
90°V-groove for folds up to 90°



135°V-groove for folds up to 135°

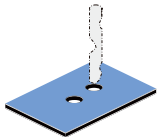


Rectangular(U-) groove for folds up to 150°, depending on panel thickness.

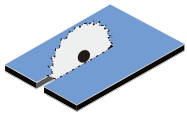


Thanks to the excellent flexibility of the coating and superb formability of the aluminum core, Sky Rainbow® aluminum lattice composite panel can be easily grooved, curved, folded and shaped.

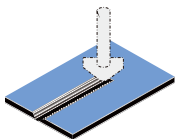
Please read above manufactures instructions carefully on the processing and application.



Drilling



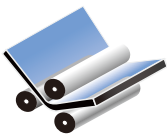
Sawing and Cutting



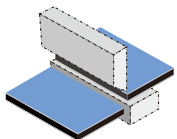
Routing



Hot Air Welding

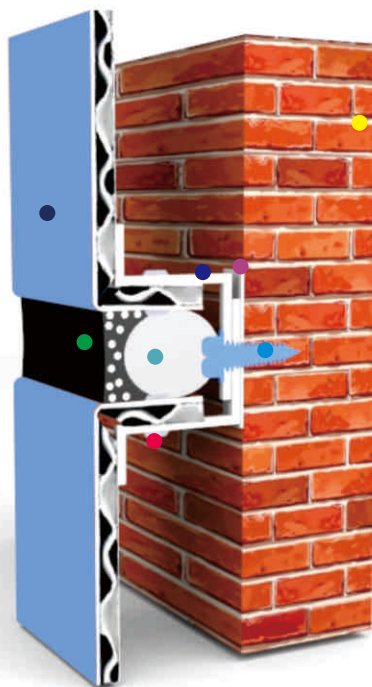


Bending with a Panel Folder



Shearing

HORIZONTAL JOINT DETAIL



- 4mm Panel
- Weather Proofing Silicone
- PE Foam Rod
- Rivet
- Self-tapping Screw
- Angle Aluminium
- Isolation Tape
- Square Tubes



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CLEANING AND MAINTENANCE

Recommended Method Of Cleaning

- ◇ Adhere to the manufacturers or suppliers maintenance recommendations.
- ◇ Your building may be washed with water, a mild detergent, a 5-10% IPA (Isopropyl Alcohol) solution or other types of mild solvents.
- ◇ When alcohol is used, it is safe to dilute less then 50% with water. When undiluted alcohol is required, pretesting should be done to confirm no damage to the finish.
- ◇ The cleaning operation must be followed by a thorough rinse with clean water.
- ◇ A final wipe down by means of a sponge, lather or wipe is recommended to avoid water stains.
- ◇ Ideally, cleaning should be done on the shaded side of the building under moderate temperature.
- ◇ During cleaning, all access equipment such as ladders, staging, mobile scaffold, cherry pickers or similar, should be prepared with pads to protect the panels from impact Improper cleaning resulting in coating damage shall not be covered by terms and conditions of product warranty
- ◇ Do not use strong organic solvents, Do not use strong alkali, strong acid and/or abrasive cleaners. If these solvents and cleaners were used, the paint may swell, flake or crack.
- ◇ Water blasting is not recommended Do not mix different cleaners. If cleaners needed to be mixed, please follow the manufacture' s instructions.
- ◇ Avoid extreme temperature to clean the coated surface. Sun-heated Avoid extreme temperature to clean the coated surface. Sun-heated surfaces (above 40°C) may accelerate chemical reactions and may evaporate the water from solution leaving residue and stains. On the contrary, extremely low temperature may give poor cleaning effects.



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