



## **Aluminum Composite Panel Professional Manufacturer Since 2000**

WENZHOU JIXIANG COMPOSITE PANEL CO.,LTD.

[www.alusignpanel.com](http://www.alusignpanel.com)

**YBOND ALUSIGNPANEL**





**YBOND**

## About Us

Wenzhou Jixiang Composite Panel Co.,Ltd was founded in 2000. We have been dedicated to the production, Research & Development, trading and servicing of Aluminum composite panels over a decade. The factory located in Wenzhou city, Zhejiang province, China. It's distance to both Wenzhou international airport 45 kilometers and Yueqing high-speed train station 18 kilometers.

We currently have over 300 employees. The R&D team include 8 professional engineers who are experienced in the ACP field for more than 10 years. Our main products are A2 Fireproof Aluminum Corrugated Composite Panel (A2 FR ACCP), Aluminum Composite Panel (including PE, PVDF, FEVE, Fireproof, Brushed, Mirror, Timber & Stone ACP) and Color Coated Aluminum Coil.



There are total 9 advanced production lines in our factory. The daily output of ACP panels can reach more than 30,000 square meters. Our company has been certificated by ISO9001, ISO14001 and OHSAS18001 certificates; the products have also been proofed by UL, SGS, SGS for Fire-resistance, CE and CTC national qualities system.

Our vast sales and service network spans 23 provinces in China. We have also exported to many areas, such as USA, Canada, Mexico, Chile, Brazil, UK, France, Germany, Australia, South-Africa, Morocco, Nigeria, Algeria, Mid-East Area, South-East Asia and so on.

Our products has been widely used in all types of building construction and signage field and get good feedback from clients. Welcome to join us and find success with Wenzhou Jixiang, your full-service ACP provider.







9 AUTOMATED PRODUCTION LINES



6 ACP PRODUCTION LINES  
32,000 SQM / DAY



1 A2 FR ACCP PRODUCTION LINE  
5,000 SQM / DAY



2 COATING LINES  
1,200 TONS / MONTH

## Production Equipment

Our factory currently have total 9 advanced high-speed production lines, including:

- \* 6 ACP production lines with a cumulative daily production capacity of 32,000 square meters;
- \* 1 A2 FR ACCP production line with a daily production capacity of 5,000 square meters;
- \* 2 automated coating lines with a total monthly production capacity of 1,200 tons.





WENZHOU JIXIANG  
COMPOSITE PANEL CO.,LTD

YBOND



# Certificates

Our factory insist " Quality is factory's life ! Stable quality is key for long time business cooperation ! " We have our own strict QC on each step ; and we have been certificated by ISO9001:2008 quality systems certificates since 2004 , ISO14001:2004 ; OHSAS18001:2007 ; SGS ; SGS-FR ; CE etc . and we are great appreciated that our customers approved our products .







**SGS TEST REPORT**

No.: SP1307422  
Date: July 22, 2013  
Page: 1 of 10

WENZHOU JIJIANG COMPOSITE PANEL CO., LTD.  
BAIJIANGANG INDUSTRIAL ZONE, BEIBAIKANG TOWN, YUEQIANG WENZHOU CITY, ZHEJIANG PROVINCE, CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Name: ALUMINIUM COMPOSITE PANEL  
Service No.: SP1307422  
SGS Ref. No.: A000130424  
Task No.: 12072404MF23-45MF01210-300-400-50MM  
Thickness: 2MM/3MM/4MM/5MM  
Composition: ALUMINIUM COIL & PLASTIC  
End use application: OUTDOOR & INDOOR DECORATION, SIGNAGE & PRINTING PANEL  
Manufacturer: WENZHOU JIJIANG COMPOSITE PANEL CO., LTD.  
Country of Origin: CHINA  
Date of Report: July 19, 2013  
Test Period: July 10, 2013 to July 18, 2013

Test result(s): For further details, please refer to the following page(s):  
To be continued

Signed for SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Liu Zhu  
Authorized signatory

**SGS Test Report**

No. A000130422 Date: JUL 18, 2013 Page 1 of 4

WENZHOU JIJIANG COMPOSITE PANEL CO., LTD.  
BAIJIANGANG INDUSTRIAL ZONE, BEIBAIKANG TOWN, YUEQIANG WENZHOU CITY, ZHEJIANG PROVINCE, CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description: FIREPROOF ALUMINIUM COMPOSITE PANEL  
Type/Style: 12072404MF23-45MF01210-300-400-50MM  
Composition: ALUMINIUM COIL & FIRE PLASTIC  
Density: 6.7 g/cm<sup>3</sup>  
Thickness: 5MM  
Manufacturer: WENZHOU JIJIANG COMPOSITE PANEL CO., LTD.  
Country of Origin: CHINA  
End Use Application: OUTDOOR & INDOOR DECORATION, SIGNAGE & PRINTING PANEL

Test Requested: EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests, class B.  
Classification using data from reaction to fire tests, class B.

Test Result(s): See attached sheet

Test Period: Sample Receiving Date: JUL 05, 2013  
Test Performing Date: JUL 06, 2013 TO JUL 17, 2013  
Signed for and on behalf of: WENZHOU JIJIANG COMPOSITE PANEL CO., LTD.

Wenjun Wang  
Lab Manager

**MA 2015000886** **CNAS** 中国合格评定国家认可委员会 TESTING CNAS L6883

**检验报告 TEST REPORT**

中心编号(No.): WT2017B01B01673

委托单位: 上海吉祥航业有限公司 SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.  
样品名称: 铝塑板 ALUMINIUM CORRUGATED COMPOSITE PANEL  
检验类别: 委托检验  
Test Type: Entrustment test

国家建筑材料测试中心  
National Research Center of Testing Techniques for Building Materials

**MA 2015000886** **CNAS** 中国合格评定国家认可委员会 TESTING CNAS L6883

**国家建筑材料测试中心**  
National Research Center of Testing Techniques for Building Materials  
**检验报告**  
TEST REPORT

中心编号(No.): WT2017B01B01673 第 1 页 共 4 页 Page 1 of 4

样品名称 Sample Name	铝塑板 ALUMINIUM CORRUGATED COMPOSITE PANEL	检验类别 Test Type	委托检验 Entrustment test
委托单位 Entrusted by	上海吉祥航业有限公司 SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.	品牌 Brand	J.J.B
生产单位 Manufacturer	上海吉祥航业有限公司 SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.	样品状态 Sample Description	样品完好 Good condition
委托日期 Sample Received Date	2017年10月17日 October 17, 2017	样品数量 Quantity	30块 30 pieces
生产日期/批号 Production Date/Batch No.	2017年8月18日 201708-1	型号规格 Model/Spec	原厚 3mm PLY 3mm
检验依据 Test Standard	JC/T 2187-2013《铝塑板复合板》 Aluminium corrugated composite panel		
检验项目 Test Items	尺寸允许偏差、拉伸强度等力学性能 17项、力学性能 2-4项。 Detailed conventions are listed in page 2-4.		
检验结论 Conclusion	“经检验，送检样品符合检验项目检验标准 JC/T 2187-2013《铝塑板复合板》的技术要求。检验结果见第 2-4 页。” Upon testing, the test results of better second level second level of JC/T 2187-2013 for JIJIANG system.”		

签发日期 (Date of issue): 2017年10月19日  
20171019

批准: [Signature] 审核: [Signature] 编制: [Signature]  
Appoved by: [Signature] Verified by: [Signature] Compiled by: [Signature]

检验单位地址: 北京市昌平区回龙观镇康陵村 电话: 45728538 邮编: 100024

**MA 2015000886** **CNAS** 中国合格评定国家认可委员会 TESTING CNAS L6883

**TEST REPORT**

No. WT2017B01B00709

SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.

Entrusted by: SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.

Sample Name: ALUMINIUM CORRUGATED COMPOSITE PANEL

Test Type: Entrustment test

国家建筑材料测试中心  
National Research Center of Testing Techniques for Building Materials

**MA 2015000886** **CNAS** 中国合格评定国家认可委员会 TESTING CNAS L6883

**National Research Center of Testing Techniques for Building Materials**  
**Test Report**

No. WT2017B01B00709 Page 1 of 2

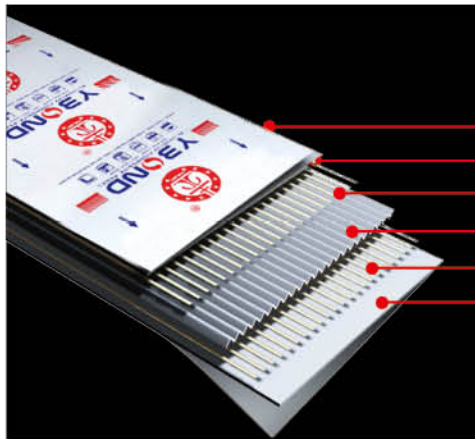
Sample Name	ALUMINIUM CORRUGATED COMPOSITE PANEL	Test Type	Entrustment test
Entrusted by	SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.	Brand	SHANGHAI
Manufacturer	SHANGHAI JIJIANG COMPOSITE PANEL CO., LTD.	Sample Description	According with testing requirements
Sample Received Date	October 25, 2017	Quantity	1300mm*405mm*4mm/5mm 1500mm*1000mm, 7 pieces Aluminium corrugated core Sp. Polyester film Sp.
Production Date/Batch No.	October 16, 2017/20171016-1	Model/Spec	2440mm*1220mm +4mm
Test Standard	GB 8624-2012: "Classification for burning behavior of building materials and products"		
Test Items	1. Burning behavior		
Conclusion	* According to GB 8624-2012, the test result of burning behavior complies with the requirement of flat shape building materials of level A (LS0-L, 0), on flame retardant materials (products). Detailed conclusion is listed in page 2.*		

Remarks: Provided by client: 1. Sample description: Aluminium composite panel with two layer aluminium front and aluminium corrugated core bonded by glue. 1.5mm decorative surface of the aluminium plate is coated with a coating. 2. Surface density of each component is sample: Aluminium plate 2.24 kg/m<sup>2</sup>, Aluminium corrugated core 1.42 kg/m<sup>2</sup>, Polyester film 0.06 kg/m<sup>2</sup>, Coating 0.016 kg/m<sup>2</sup>. 3. The fire surface is the side of decorative aluminium plate.

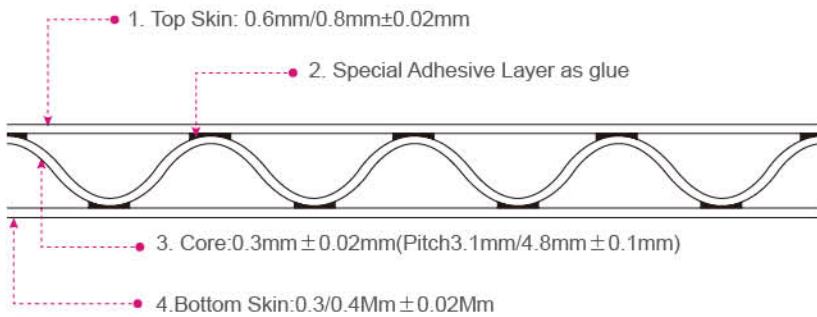
Approved by: [Signature] Verified by: [Signature] Compiled by: [Signature]

Test Institution Address: The South Branch of China Building Materials Academy, Guoding Building, Changping District, Beijing, China. Telephone: +86-010-67728139 Post Code: 100021

# A2 FR Aluminum Corrugated Composite Panel



- Ybond Protective film
- PVDF KY or Polyester Coating Alu.Skin
- Adhesive Layer
- Aluminum Corrugated Core
- Adhesive Layer
- Service coated/Mill Finished Primer Alu.Skin



## Product Dimension

YBOND is available in various dimensions, however, our standard Product is 4mm × 1220mm × 2440mm  
Other available sizes are as follows:

Dimension	Unit	Standard	Size Available
Width	mm	1220	1220mm , 1250mm, 1500mm
Length	mm	2440	Any , better < 5800mm
Thickness	mm	6	4, 6, 10
Custom Size	Accept		

## Aluminum Alloy Type

Top & Bottom Alu. Skin : AA3003 series alloy  
Core : AA3003 series alloy

## Coating Finishes

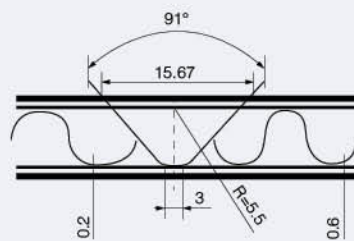
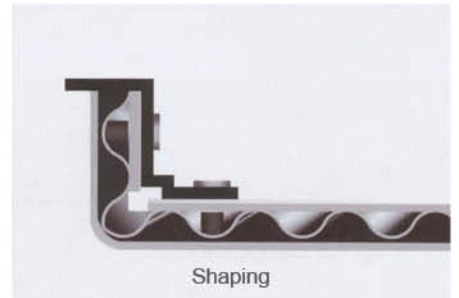
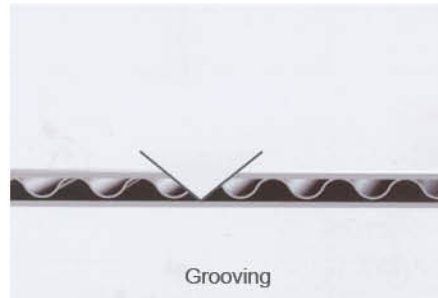
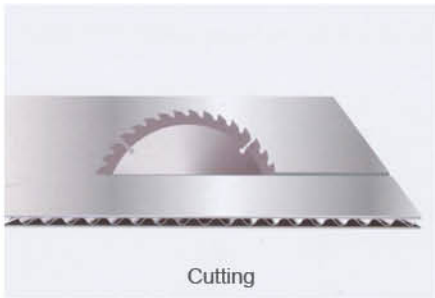
Aluminum Coil alloy (3003 Series) coated with KYNAR®500 based Fluorocarbon (PVDF utilizing a minimum 70% KDF resin). PVDF Coating system offers Two or Three Layer coating depending on color selection such as Metallic colors and Normal RAL Colors. Metallic Colors are normally Three (3) coat system consisting of a Primer, Color and Clear Top coat. Normal RAL colors usually have Two (2) coat system composed of Primer and Color Coat.



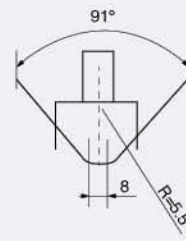
## Comparative table of metal exterior

Item	Alu. Composite Panel	Alu. Solid Panel	Alu. Corrugated Composite Panel
Material	0.5mm (Skin)	3.0mm	0.80mm / 0.60mm
Thickness	4mm	3.0mm	6mm, 4mm
Weight	5.5kg/m <sup>2</sup>	8.1kg/m <sup>2</sup>	4.3kg/m <sup>2</sup> , 3.7kg/m <sup>2</sup>
Light Weight	Good	Normal	Excellent
Fire Proof	Normal	Good	Good

## Secondary operation of Aluminum corrugated composite Panel



Grooving Detail



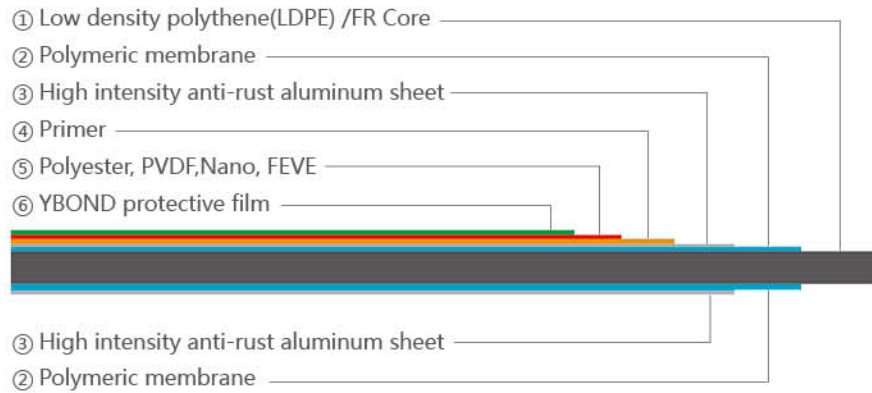
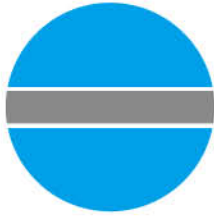
Grooving Saw Shape

## Advantages

- Durable
- Economic
- Heat-Insulation
- Non-Combustible , FR A2 Grade
- Light Weight
- Eco Friendly
- Sound Insulation



# Aluminum Composite Panel



ACM



ACP



## Specification

Width	1220mm , 1250mm , 1500mm
Length	2440mm , 3050mm , 4050mm , 5000mm
Panel Thickness	2mm , 3mm , 4mm , 5mm , 6mm
Alu.skin Thickness	0.10mm ~ 0.50mm : 0.10mm , 0.15mm , 0.21mm , 0.30mm , 0.40mm ,0.50mm
Coating	Pvdf Ky,Feve,Polyester
Core Materials	polyethylene plastic or Fireproof core
Standard Size	1220 *2440mm (4' *8' ) ; 1500*3050mm ( 5' * 10' )
Others	custom size accept



## Dimensional Tolerances

Thickness(mm)	±0.2mm
Width(mm)	±2
Length(mm)	±3
Diagonal(mm)	±5
Thermal Expansion(mm)	2.4mm/m@100°C Temp difference
Aluminium Thickness(mm)	±0.02

## Surface Properties

Pencil Hardness	>HB
Temperature Resistance	40°C ~80°C
Impact Strength (kg cm2)	Impact Strength(kg cm2)50
Boiling Water Resistance	Boiling for 2hrs without change
Acid Resistance	Immerse in 5% HC 1 for 24Hrs without chang
Alkali Resistance	Immersed surface in 5% NaOH for 24Hrs without chang
Oil Resistance	Immerse surface in 20# engine oil for 24Hrs without chang
Solvent Resistace	Cleaned 100 times with Dimethylbenzene without change
Cleaning Resistance	>1000times without change
Peel Strength 180°	180° >5Newton/mm
Cold resistance	-40°C

## Advantage



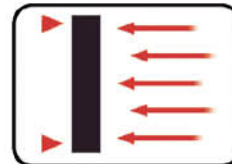
Easy Maintenance



Easy Processing



Non-Toxicity and Safety



Super Peeling Strength



Excellent Coating Property

## PE Colors coated Aluminum Coil



Our factory have 2 coating lines : PE color coated aluminum coil with good PE paints high performance of aluminum coil is produced by advanced roller coating .All performance parameters are up to or much high than related national standards .

**Raw Material : The alloy of the aluminum : AA1100 , AA3003 , AA5005**

**Paint : Polyester or PVDF KY**

### **Specification**

Thickness : 0.02MM ~ 0.60MM .

Width : 1240MM , 1270MM , 1520MM ,1570MM etc .

Color : refer to our standard color catalogue , also can produce according to customers requirements .

Max Diameter : 1200MM

Weight : 2.5 Ton / Coil ; 3 Ton / Coil .

Interior Diameter : 505 MM or 405 MM

### **Application**

PE coil is widely and mainly used for building decoration , such as ACP ,aluminum ceilings , aluminum sheets , honeycomb panels and

aluminum roofing , lighting decoration , household electrical appliances ,food package ( such as pop can cover & ring-pull ) , furniture etc .



## The Performance of PE color coated Coil

1.Thickness < = 0.50MM

Item	Test Item	Standard	National Standard	Test Result
1	Color Difference	ECCA T3	$\Delta E < = 2.0$	$\Delta E < = 1.5$
2	Gloss Difference	ECCA T2	$< = 10$	$< = 5$
3	Coating Thickness	ECCA T1	Min 14 Micron	Min 16 Micron
4	Pencil Hardness	ASTM D3363	$> = HB$	$> = HB$
5	T-Bend	ASTM D4145	$< = 3T$	$< = 2T$
6	Adhesion	ASTM D3359	Grade 0	Grade 0
7	Impact	ASTM D2794	$> = 20\text{kg.cm}$	$> = 20\text{kg.cm}$
8	Boiling Water Resistance	GB/T 17748	2 h no change	2 h no change
9	Solvent Resistance	ASTM D2248	200 times paint remaining	200 times paint remaining
10	Salt Resistance	ASTM B117	720 Hrs $< =$ grade 1	720 Hrs $< =$ grade 1
11	Dirt Resistance	GB/T 9780	$< = 5\%$	$< = 5\%$
12	Color retaining	GB/T16259	600 hrs $\Delta E < = 2$	$\Delta E < = 2$
13	Gloss weaken level		600 hrs $< =$ Grade 2	$< =$ Grade 2
14	Chalking		600 hrs no change	No change

1.Thickness > 0.5MM

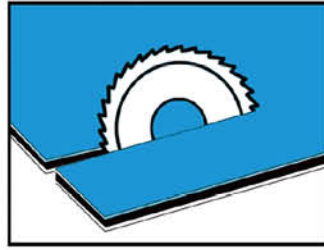
Item	Test Item	Standard	National Standard	Test Result
1	Color Difference	ECCA T3	$\Delta E < = 2.0$	$\Delta E < = 1.5$
2	Gloss Difference	ECCA T2	$< = 10$	$< = 5$
3	Coating Thickness	ECCA T1	Min 14 Micron	Min 16 Micron
4	Pencil Hardness	ASTM D3363	$> = HB$	$> = HB$
5	T-Bend	ASTM D4145	$< = 3T$	$< = 2T$
6	Adhesion	ASTM D3359	Grade 0	Grade 0
7	Impact	ASTM D2794	$> = 50\text{kg.cm}$	$> = 50\text{kg.cm}$
8	Boiling Water Resistance	GB/T 17748	2 h no change	2 h no change
9	Solvent Resistance	ASTM D2248	200 times paint remaining	200 times paint remaining
10	Salt Resistance	ASTM B117	720 Hrs $< =$ grade 1	720 Hrs $< =$ grade 1
11	Dirt Resistance	GB/T 9780	$< = 5\%$	$< = 5\%$
12	Color retaining	GB/T16259	600 hrs $\Delta E < = 2$	$\Delta E < = 2$
13	Gloss weaken level		600 hrs $< =$ Grade 2	$< =$ Grade 2
14	Chalking		600 hrs no change	No change

# Processing



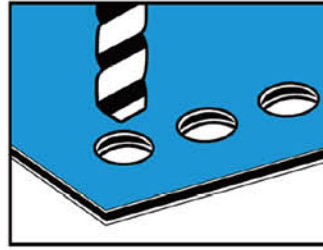
## Gluing

Use standard metal and aluminium adhesives. Ensure you avoid contact with the polyethylene centre some adhesives will attack and damage the



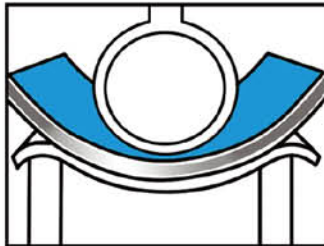
## Sawing

Circular Saw; trapezoidal/ flat tooth blade Flat teeth chamfered at 45° carbide tipped.



## Drilling

YBOND is easily drilled-we suggest for best results, the use of bits designed for drilling aluminium and plastic are used.



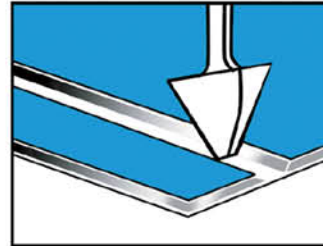
## Bending

Use a folding table.  
Min inside radius  $r = 15t$  ( $t$ =panel thickness).



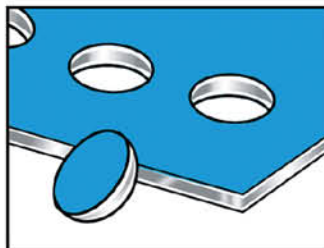
## Digital printing

There have been numerous inks tested for compatibility and adherence to YBOND. The company has the large-scale digital printing machine for the customers.



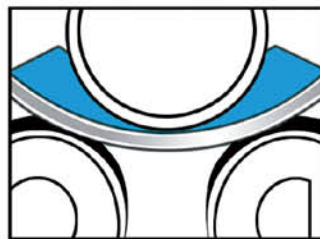
## Slotting

Grooves can also be easily cut using a special cutting machine that comes complete with a guide. The v shaped groove is automatically cut into YBOND, which can then be easily fold by hand. A minimum thickness of 0,3mm of the polyethylene must be left on the bottom of back of the decorative face.



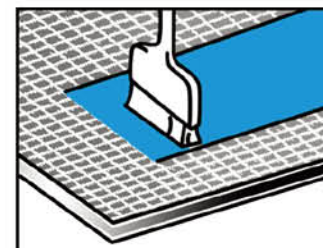
## Punching

Use a steel band tool on a punching base for 2mm and 3mm thickness. Conventional punching machines are excellent for this process.



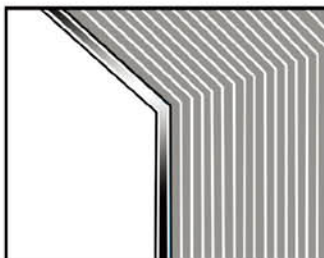
## Roll bending

3-roller panel bender is preferable for bending large internal diameters.



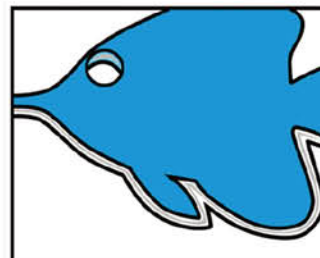
## Silk-screen

There have been numerous inks tested for compatibility and adherence to YBOND.



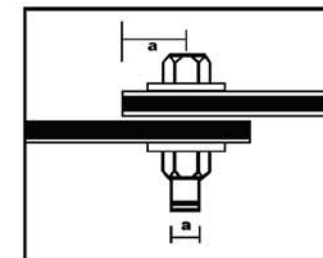
## Folding

YBOND Can easily be folded by slotting or routing a groove on the rear of the product, as describes in the slotting and routing section.



## Contour cutting

YBOND can laminated manually or by machine using cast or calendared self adhesive foil. The quality of polyester finish ensures it does not come off. If the foil is changed, photographs can be applied with adhesive film or wet dispersion adhesive. panel must be clean and free from grease.



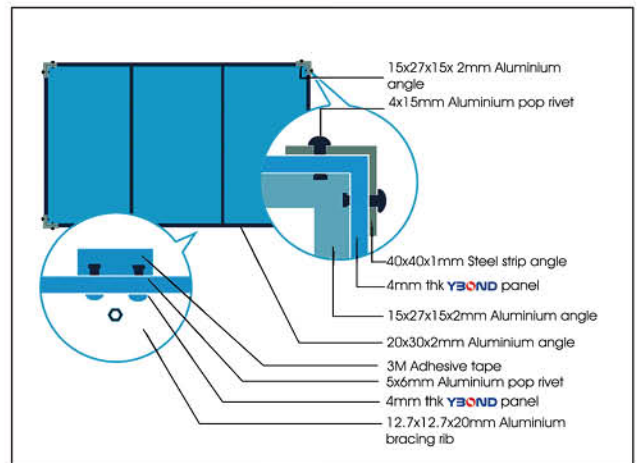
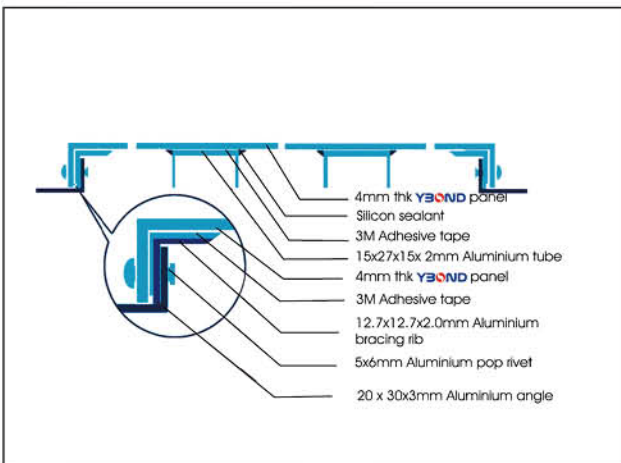
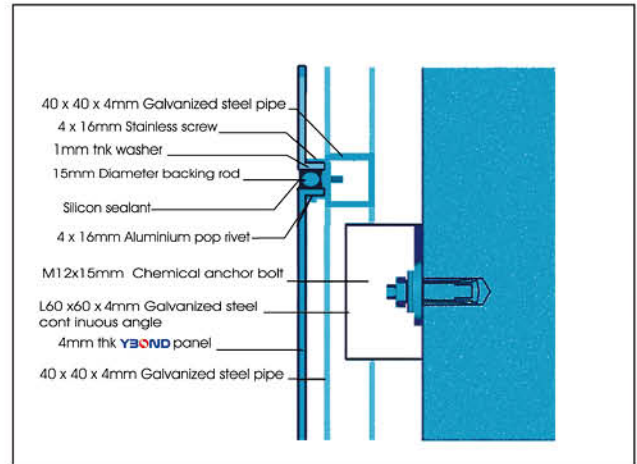
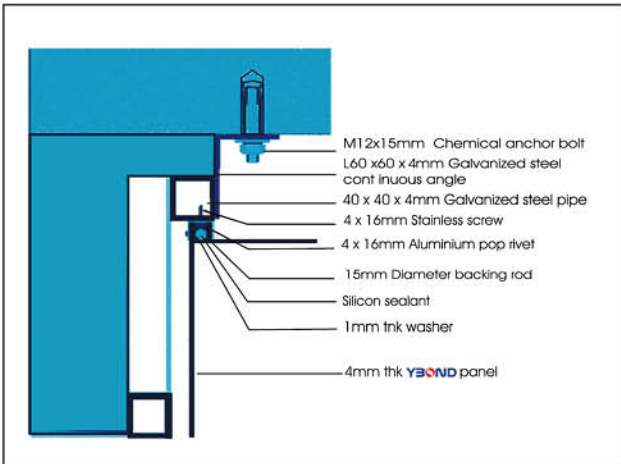
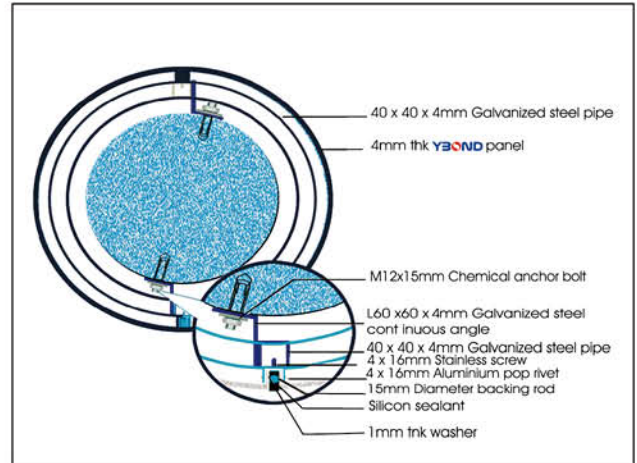
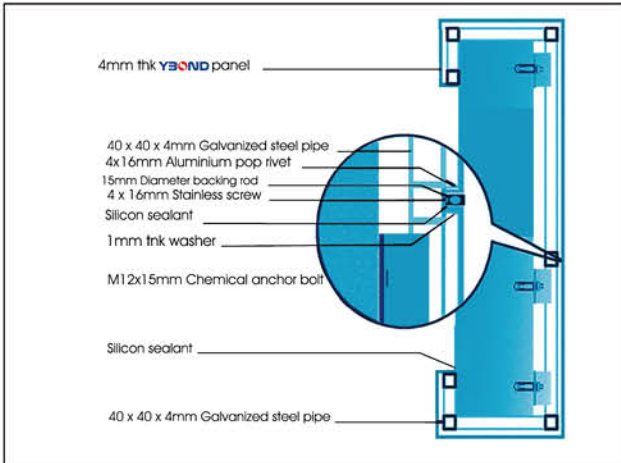
## Clamping and bolting

Can be clamped with a serrated corner joint and bolt sections for YBOND thickness of 3mm and 4mm.

When bolting,  $e=2D$  is the formula to use to calculate the distance of fixing to the end of the panel



# Installation Tips



# Colors



Pure White



Ivory White



Aluminum



Silver Grey



Champagne Silver



Brass Yellow



Gold Metallic



Brown Copper



Silver Metallic



Champagne Gold



Grey Metallic



Dark Grey



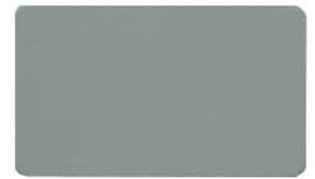
Dark coffee



Light Coffee



Pure Black



Light Grey



Lake Blue



Sky Blue



Sea Blue



Deep Blue



Police Blue



Telecom Green



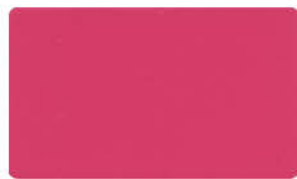
Apple Green



ABC Green



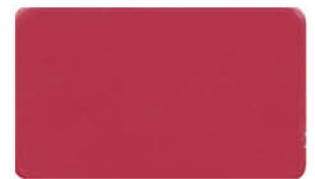
Post Green



Light Rose



C-Red



Rose Red

Above colors are only for reference , please confirm the color with actual samples ; Custom & RAL & Pantone colors are available .

The colors may slightly vary between production lots , to ensure the color consistency . Recommend placing total requirement in one order per project .





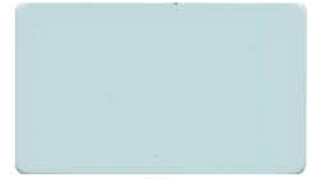
Big Red



Coffee Red



Deep Rose



Bice



Milk Green



Jade Metallic



Pure Yellow



Orange Red



Glossy White



Glossy Sky Blue



Glossy Telecom Blue



Glossy Telecom Green



Glossy Green



Glossy Blue



Glossy Black



Glossy Red



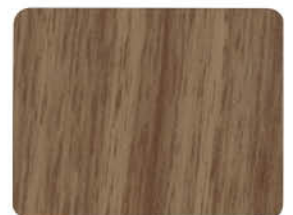
Glossy Coffee Red



Parlato Svevo



Cherry



Walnut



Maple



Natural Cherry



Noble Cherry



Wenge

# Application Field

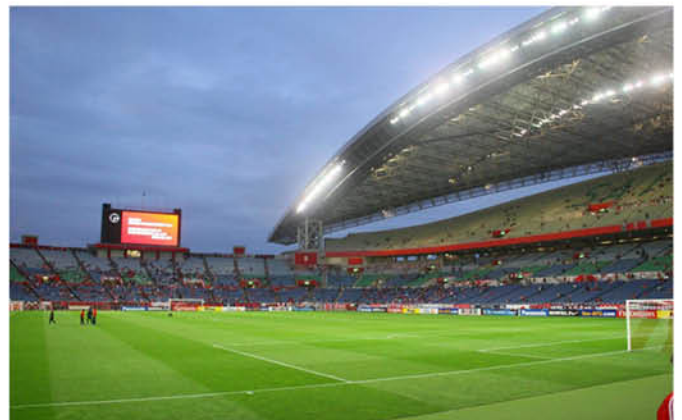
YBOND ACP , A2 Fire Resistant ACCP building materials based on Light Weight , Colorful , Excent Processing , Good Fireproof , usually used for Convention Centers, Hospitals, Residential & Commercial buildings ; Also popular on signage board , digital & UV printing using etc ..



The Airport Constructions



The Hospitals Wall cladding



The Sport Stadium





The Commercial Buildings



The Furniture Board



The Interior Decorations



The Rail Train Covers



The Boat Covers



The Road Sound Insulation Board



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**YBOND**

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