



Aluminum Composite Panel
铝塑复合板

A2 FR ACP
A2防火铝塑板



A2 Aluminum Composite Panel

A2防火铝塑复合板

公司简介

Introduction



广东宝丽雅金属建材有限公司成立于1997年。公司致力于生产，研发和销售金属复合板和金属蜂窝板，包括铝塑复合板，不锈钢复合板，铜复合板，锌复合板，钛复合板，镀锌钢复合板以及这些种类的蜂窝板。

Guangdong Bolliya Metal Building Materials Co., Ltd founded in 1997 specializing in the work of manufacture, research and sell for metal composite panels and metal honeycomb panels including the aluminum composite, stainless steel composite, copper composite, zinc composite, titanium composite, galvanized steel composite as well as the honeycomb panel with same metals.

宝丽雅牌子铝塑复合板是公司最主要的系列产品，20年来得益于最先进生产设备，最严格的质量控制和最领先的企业管理，非常成功得将具有代表宝丽雅特点的高端优质铝塑板推向国内外市场，受到建筑行业设计师，工程商以及批发商的一致青睐和信任。

Aluminum composite panel is a featured product in Bolliya, it has been introduced to local and overseas market successfully in the past 20 years counting on the advance production technology, the stringent QC and world leading management. The brand of Bolliya aluminum composite panel has represented the superior product from China is now popularly accepted by architects, building companies and distributors around the world.



生产工艺

Production and Technology

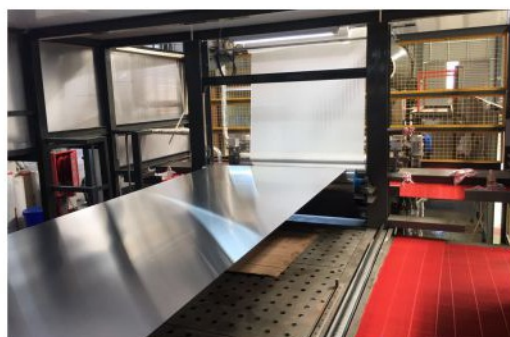
宝丽雅拥有全球最新一代全自动全封闭式复合生产线，高温控制连续热复合工艺生产的板材具有优异的粘合力，强度和平整度。线上长度150米可以完全冷却成型同时配合线上的张力控制设备，自动纠边设备，精准切板设备和双向自动吸盘设备的运作下既可提升板材综合质量，也可完成线上全方位产品质量检测，整个过程连续高效，节能环保。

By having the newest generation lamination production – a fully automatic and closed working machinery can perfectly control with heated lamination process which ensure an excellent bonding strength, flatness and rigidity. A 150 meter length of lamination line gives more space to cool down to steady structure while the edge-tracking equipment, precise cutting equipment and the bi-direction sucking equipment can enormously improve the quality from manufacturing, what's more the QC can completely tested on the line, all the process can be with high efficiency and saving with energy.

复合 Lamination



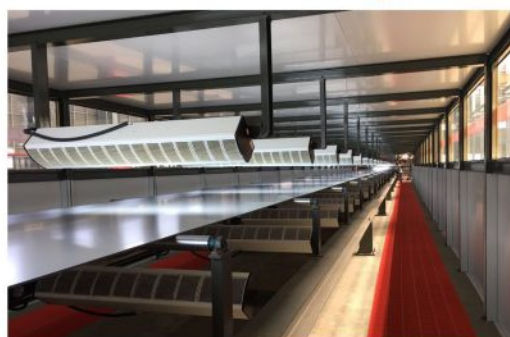
释放铝卷 coils releasing



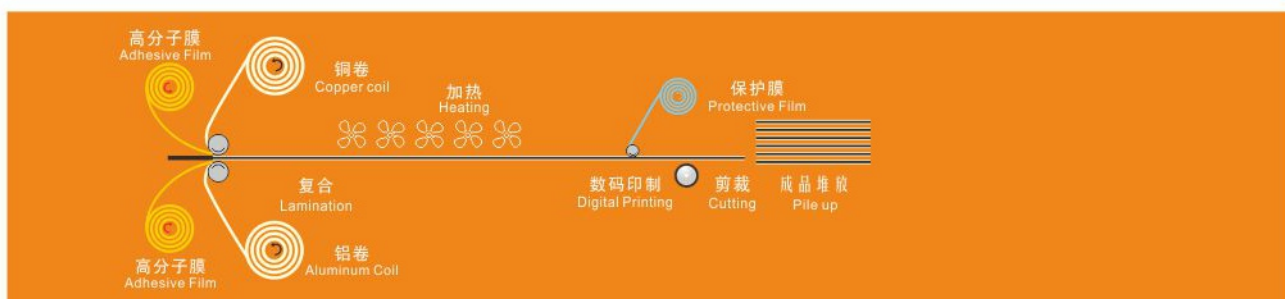
芯材复合 laminating



切板叠放 cutting and piling up



冷却检查 cooling and inspecting



为何使用防火铝塑板？

Why a FR ACP is necessary?

近年来，国内外公寓，办公楼，公共场所等地方的楼层着火造成严重人员伤亡事件频繁发生，楼层外表装饰所使用的普通塑料铝塑板属于易燃材质被判定为导致火焰浓烈受害严重的最主要原因。假如使用防火铝塑板，发生大火的时候能够阻止火焰蔓延，有足够让人们逃离现场和进行消防措施。

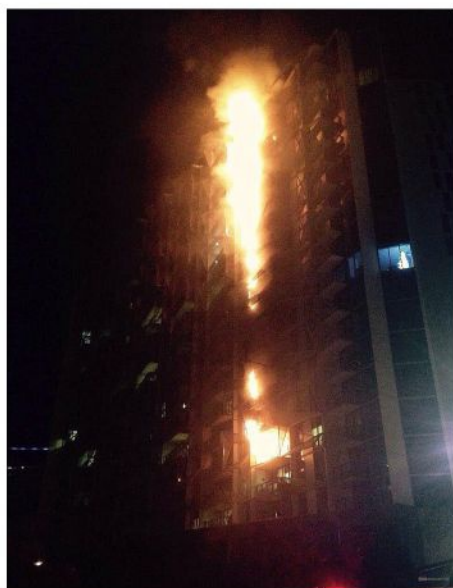
In recent years, fire accidents happened frequently on places such as apartments, office houses and other public areas at home and abroad. It's recognized the combustible PE core aluminum composite panel (ACP) is the material leading to severe death and loss from the fire. If the building built with non combustible ACP, the fire won't spread easily or it may extinct after times, therefore it can create a surrounding for suffer to escape and more time for fireman to fight the fire.



北京 Beijing 2009



伦敦 London 2017



墨尔本 Melbourne 2014

由于缺乏建筑方面的消防意识或者其它人为因素导致伤亡损失，许多国家已经强制性的将防火铝塑板列入建筑标准里，只有达到防火标准的铝塑板才可以允许使用。

Many countries has compulsory regulate the ACP to their building code for construction, only to meet with their fire rated standard it can be used so as to bring protection from fire and to convey safety information around the construction areas.

宝丽雅 A2防火铝塑板 Bolliya® A2 ACP

宝丽雅A2防火铝塑板符合复合板行业的最高防火标准，够使用于居民住宅房，大型公共场所像车站，机场，医院，学校以及高楼层的建筑楼等。

Bolliya® A2 ACP comply to highest standard of fire proof. It can be applied to residency houses, public areas like terminal station, airport, hospital, school and high rise building etc.

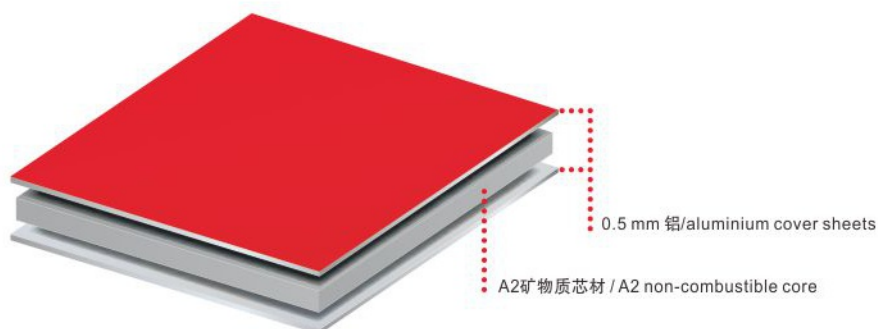
90%

宝丽雅A2防火芯材的不燃矿物质材料达到90%

BOLLIYA® A2 consists of approx.90% of non-combustible ingredients within the core material

产品结构

Composition

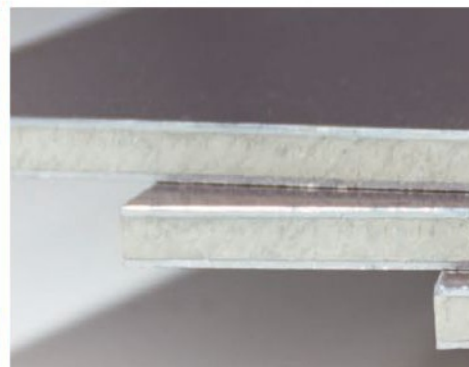


常规尺寸 Dimension (standard)

厚度 (误差 ± 0.2 mm) Thickness (tolerance ± 0.2 mm)	宽度 (误差 ± 2.0 mm) Standard Width (tolerance ± 2.0 mm)	长度 (误差 ± 4 mm) Length (tolerance ± 4 mm)
4mm	1220, 1250, 1575mm	1000-7200mm
铝厚 Skin thickness	最长宽度 Max Width	对角线(误差) Squareness tolerance
0.5mm	2200mm	5mm

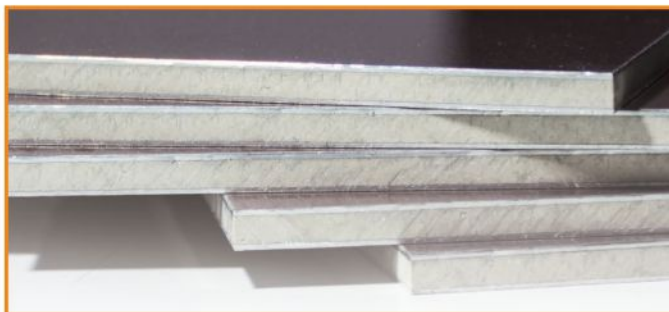
产品性能数据 Technical Data Sheet

厚度 Panel Thickness	标准 Standard	单位 Unit	4mm
铝卷 Aluminium layers		(mm)	0.5
重量 Weight		(kgs/m ²)	8.5
宽度 Width			1220 1250 1575
技术性能 Technical Properties			
折弯强度 Bending Strength	ASTM D968-2005	Mpa	124
剥离强度 Peeling Strength	ASTM D903-98	N/mm	12.7
铅笔硬度 Pencil Hardness	ASTM D3363-05	HB	2
抗冲击力 Impact Resistance	ASTM D 2794-93	kg.cm	50
热变形 Heat Distortion	ASTM D648-06	°C	111
弹性模数 Elastic Modulus	ASTM D968-2005	Mpa	2.47x10(4)
耐穿透性 Penetration Resistance	KN	KN	8.52
剪应力 Shearing Strength	ASTM D732-02	Mpa	27.3
芯材 Core			
A2矿物质芯材 A2 FR core		g/m ³	1.9



宝丽雅 A2 防火板

BOLLIYA® A2



A2防火芯材主要是由碳酸钙，氢氧化镁，氢氧化铝等的无机混合物以及其它阻燃材料组成的，它能够达到全球最高防火标准的同时不影响板材的使用性能，保留了产品使用在建筑楼上的具有活力和艺术美优点。

A2 non-combustible material made of inorganic compounds comprising of calcium carbonate (CaCO_3), Magnesium hydroxide ($\text{Mg}(\text{OH})_2$), and aluminum hydroxide ($\text{Al}(\text{OH})_3$). It meets the stringent fire regulation globally without losing the original properties to retain architectural possibilities for the concept and design of buildings.



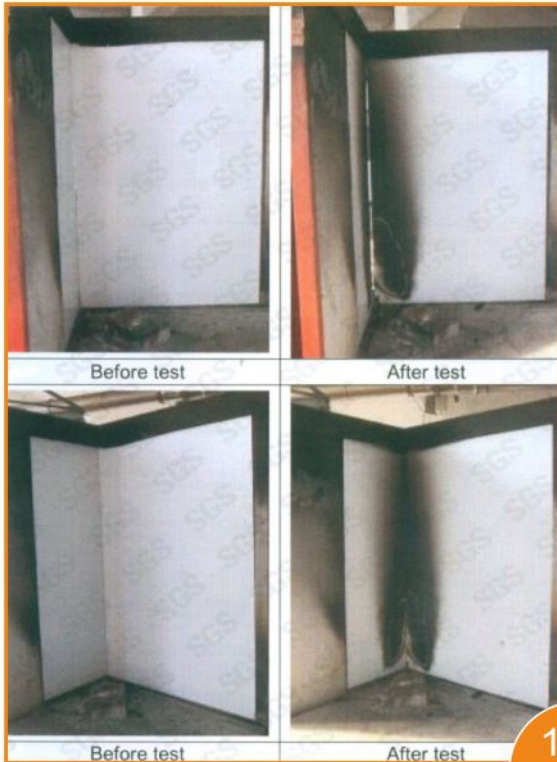
A2防火性能 A2 Fire Performance

国家及地区	Country	测试标准 Test accord. To...	防火等级 Results/Classification
欧盟	EU	EN 13501-1	Class A,s2,d0
德国	Germany	DIN EN 13501-1 DIN 4102 Part 7	Class A,s2,d0 passed
奥地利	Austria	ONORM EN 13501-1	Class A,s2,d0
英国	British Standard	BS 476, Part 4 BS 476, Part 6 BS 476, Part 7	Non combustible
美国	USA	ASTM E84 & NFPA 285	Passed
澳大利亚	Australia	AS15030.3	No ignition

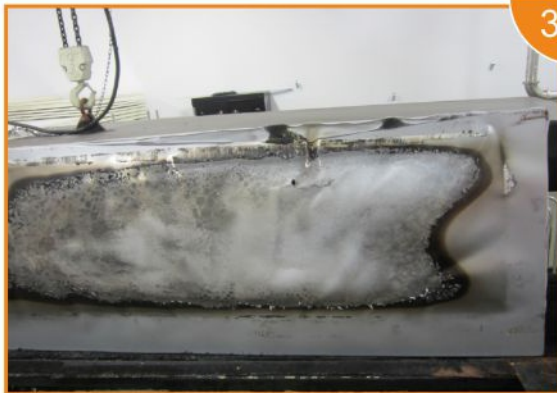
宝丽雅 A2防火测试

BOLLIYA® A2 FR ACP Qualification Tests

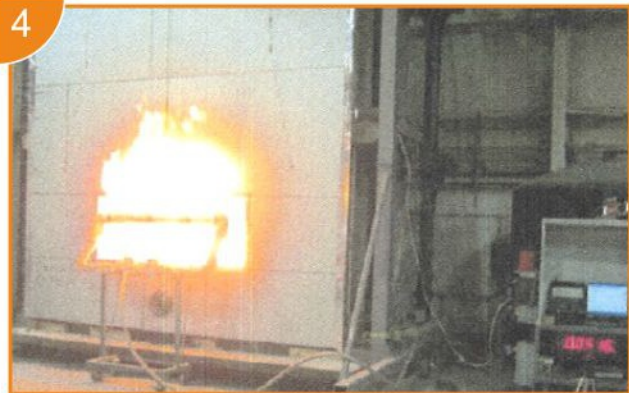
EN13501-1



BS 476- Part6&7



ASTM E-84



NFPA 285

主要防火测试项目 Main FR testing criteria

- | | |
|---------|-------------------------|
| 1.火焰蔓延 | Spread of fire |
| 2.释放烟雾量 | Smoke emission |
| 3.滴落物 | Droplets |
| 4.火焰自熄 | Self-extinction of fire |

第三方权威认证

Third party certificates



Valued Quality. Delivered.

REPORT NUMBER: 150211006SHF-FAM
ORIGINAL ISSUE DATE: May 15, 2016

EVALUATION CENTER
INTERTEK TESTING SERVICES LTD., SHANGHAI
NO.7 BUILDING, NO. 6568 DAVE ROAD, FENOXIAN DISTRICT,
SHANGHAI, CHINA

RENDERED TO
Guangdong Bolliya Metal Building Materials Co., Ltd

PRODUCT EVALUATED
4 mm & 6 mm thick, PE-core & FR-core ACM panels

AUDIT PROGRAM
Intertek CRR Approval

The Client is solely responsible for implementing and maintaining the Quality Control Program and maintaining product compliance with the applicable requirements of the above mentioned programs.

Factory Audit Manual

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved by Intertek. The observations in this report are relevant only to the site visit as identified above. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. Further, Intertek does not assume responsibility for the Client's Quality Control Program and Intertek does not operate any Quality Control Program on behalf of the Client.

坚持高品质生产，稳固生产水平，不断获得信任,成为一家行业先锋，具有社会责任感的企业是一直以来的使命。为保持这个水平，我们与具有国际权威的第三方检测机构有多年合作，定期对所有生产环节进行评估，对生产设备，安全性等都有严格的测评。

Keeping up on the level of manufacturing and enhancing the stability of quality enables us to be a pioneer in the filed. Our commitment is to be a responsible enterprise for the society. In order to maintain the level, we cooperate with reputed third party certification organization regularly investigate on all the manufacturing process, on all the machineries and safety etc.



Safety Data Sheet
29 CFR 1910.1200

Page 2/5

Printing date: 12/12/2013 Reviewed on: 12/12/2013

Trade name: Aluminum composite panel / Metal composite material (Cont'd. of page 1)

4 First-aid measures

Description of first aid measures:

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

5 Fire-fighting measures

Suitable extinguishing agent:

- CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazard arising from the substance or mixture: No further relevant information available.
- Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions:

- Do not allow product to reach sewage system or any water course.
- Inform respective authorities in case of leakage into water course or sewage system.
- Do not allow to enter sensitive surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.

7 Handling and storage

Handling:

- Precautions for safe handling: No special measures required.
- Information about protection against explosions and fires: No special measures required.

Storage:

- Requirements to be met by storehouses and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters:

- Components with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The data that were valid during the creation were used as basis.

Based on the composition shown in Section 3, the following measures are suggested for occupational safety measures:

- Personal protective equipment:*
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- Respiratory equipment: Suitable respiratory protective device recommended.
- Protection of hands:
- Protective gloves

(Cont'd. on page 3)

*备注正式的联系下才能提供证书

*Remarks:all certificates can only be required formally.

加工概述 Processing at a glance

切割成形 Cutting to shape



锯切 Sawing

- 用垂直板锯，圆锯或线锯
with vertical panel saw, circular or jig saw



切割 Cutting

- 轻微切割板材表面 (slight drawing of the panel cover sheet), cushion clamp

冲压/装饰制作 Punching/Decorative work



冲压 Punching

- 可用普通冲压压机进行加工，请用圆的冲压模具
with conventional sheet punching machines. For clean cuts please use evenly ground tools. Drawing of the panel cover sheet



轮廓切割 Contour cutting

- 用压水枪，数控设备或线锯
with water torches, CNC machining centres and jig saws

表面处理 Surface treatment



上漆 Lacquering

- 用适当的油漆在铝塑板表面进行加处理
overlacquering of Bolliya panels surfaces possible with suitable lacquer qualities

造型 Shaping



压弯 Bending

- 应用折弯机或压板器材处理
with folding machine or bending press, min. inner radius



因滚轴压弯 Roll bending

- 用电滚轴压弯机处理，注意应用圆形压轴
with roll bending machines. Make sure to use ground rolls.



折叠 Folding (routing technique)

- 用开槽机、数控器材切割V形槽之后人工折叠
manually after routing a V-groove using a panel saw with routing device, a CNC machining center or a panel routing machine

连接 Jointing



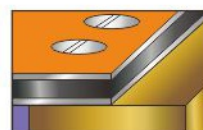
钻孔 Drilling holes for jointing

- 用适合于铝板和塑料板的钻头
with drill bits for aluminium sheet and plastic panels



铆钉连接 Riveting

- 用普通工具及铆钉则可
with normal tools and rivets or blind rivets



螺丝连接 Screwing

- 用普通不锈钢螺丝则可
with normal stainless steel screws or bolts for wood, sheet or metal



熔接 Welding

- 用热气熔接器材连接聚乙烯芯才
the PE core material with hot-air welding devices and PE welding rod



胶水连接 Glueing

- 室外 Outdoor use
复合胶粘剂
adhesive sealing compound
- 室内 Indoor use
铝制品用的金属粘合剂
metal adhesives for aluminium
- 双面胶
double-sided adhesive tape

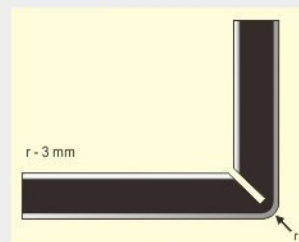
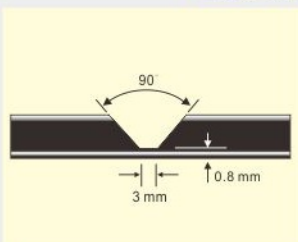
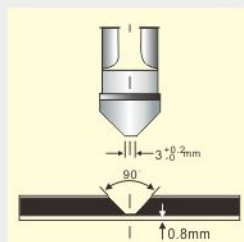


夹紧固定 Clamp connections

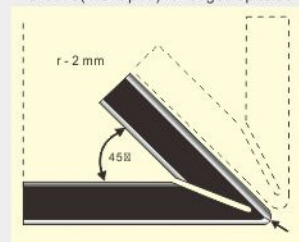
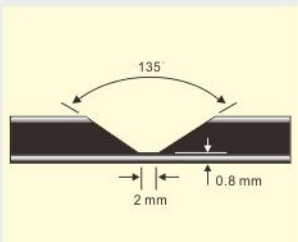
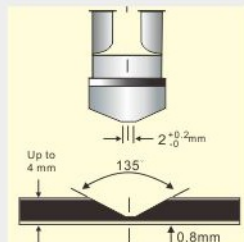
- 用带齿状的连接及角位部件夹紧
with toothed butt joint and corner sections for 3,4 and 6 mm

加工处理 Processing

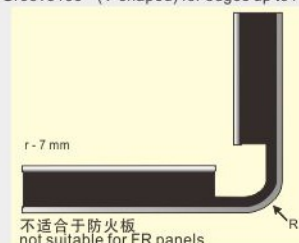
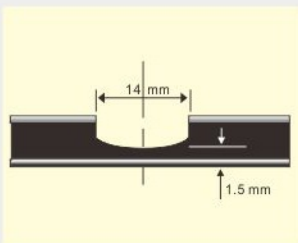
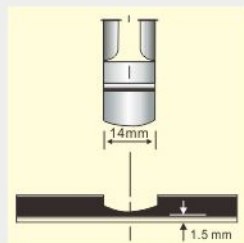
开槽细节 Grooving details



V形开槽90°
Groove(V-shaped) for edges up to 90°

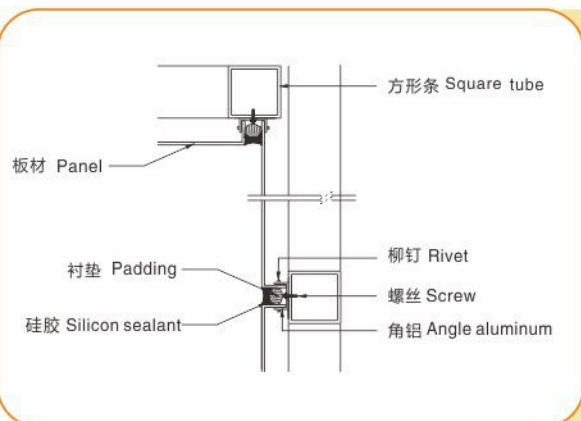


V形开槽135°
Groove135° (V-shaped) for edges up to 135°

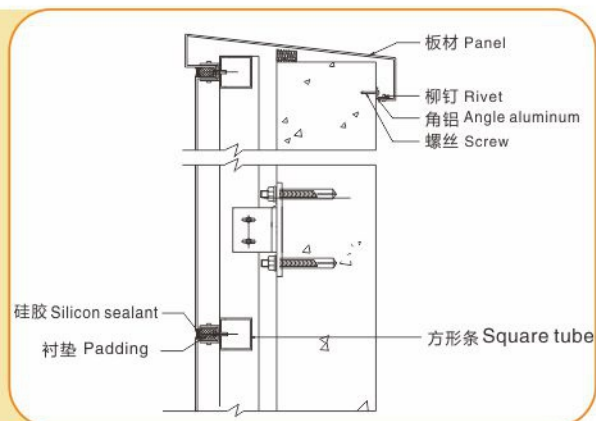


不适合于防火板
not suitable for FR panels
矩形开槽可达180°，具体视板材厚度而定
Rectangular groove for edges up to 180° depending on panel thickness

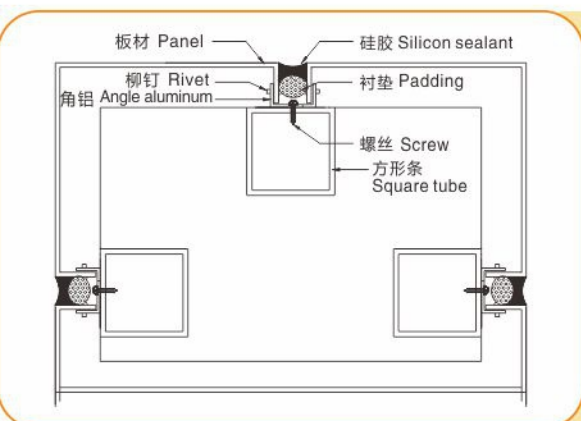
安装指引(密封系统) Installation Instruction (Seal-up System)



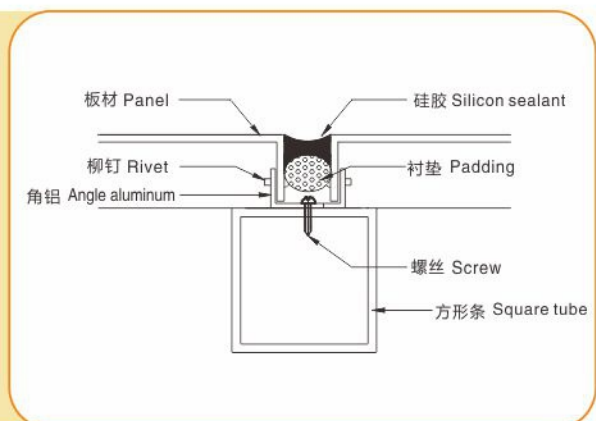
室内转角位 Internal Turning



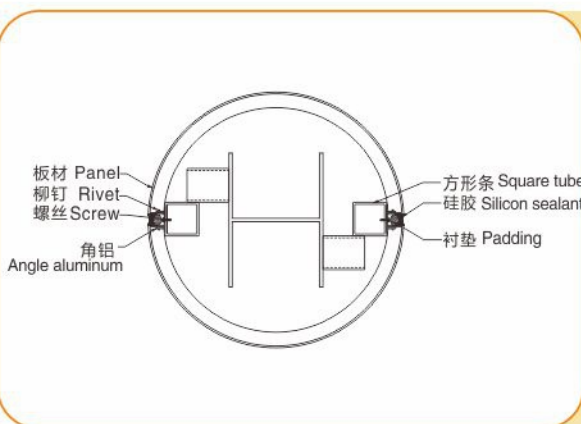
屋顶处理 Roof Processing



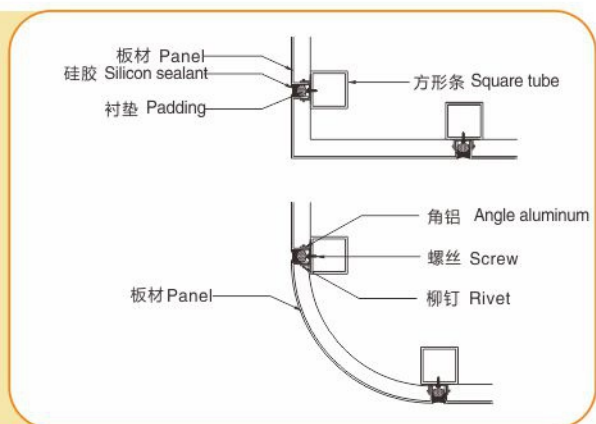
方形柱 Square Column



常规安装 Regular

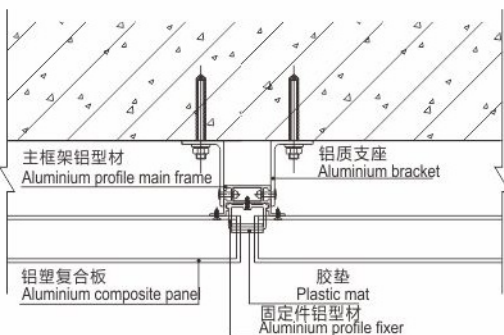


圆柱 Column

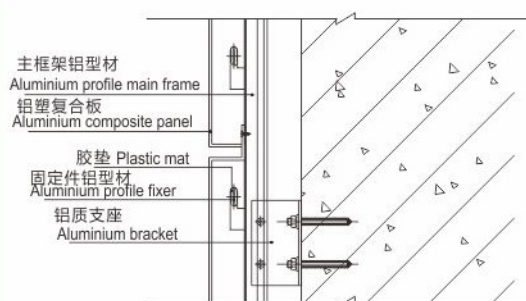


室外转角位 External Turning

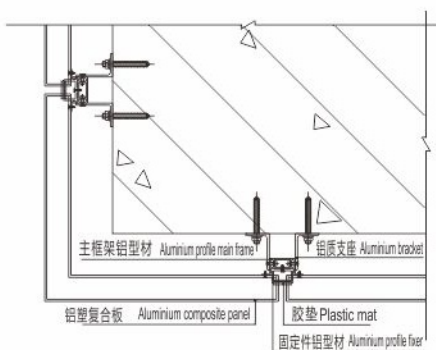
安装指引(开放式系统) Installation Instruction (Open-up System)



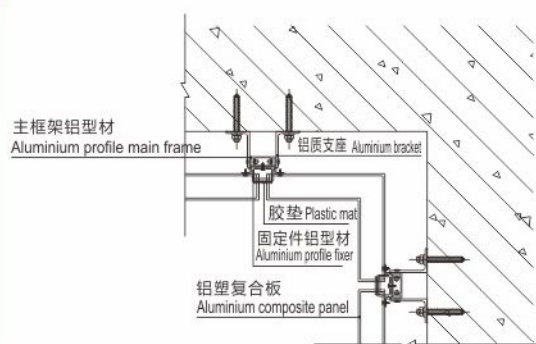
常规安装 Regular



垂直安装 Vertical

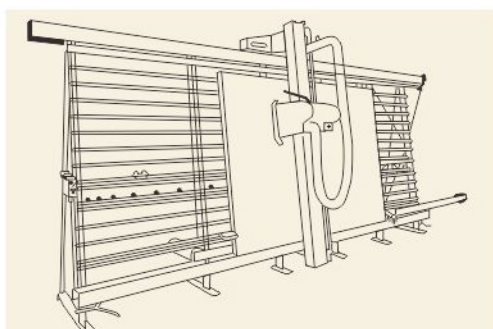


室外转角位 External Turning

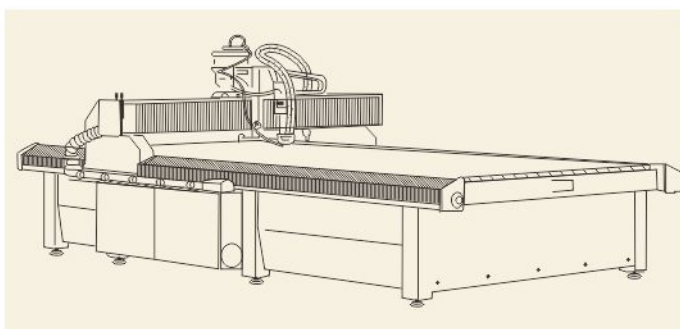


室内转角位 Internal Turning

开槽器械 Grooving machineries



垂直开槽
Vertical Saw



水平开槽
Horizontal Saw

Bolliya, makes your architectural dream come true...

宝丽雅与您共创建筑梦想...



广东宝丽雅金属建材有限公司

Guangdong Bolliya Metal Building Materials Co., Ltd

地址: 广东省佛山市顺德区杏坛镇雁园工业区兴业路9号

ADD: #9 Xingye Road Yanyuan Industrial Zone, Xingtan, Shunde, Foshan, Guangdong P.R of China Zip 528325

电话: +86-0757-22890830/22890832 传真: +86-0757-22890820

TEL: +86-0757-22890830/22890832 FAX: +86-0757-22890820

http://www.bolliya.com Email: sales@bolliya.com

http://www.bolliya.com Email: sales@bolliya.com