## FR A2 MCP

Class-A2 Fire-proof Metal Composite Panel [A2级防火金属复合板]

Excellent & Outstanding 构出色 筑极致





## **ABOUT US**

公司主要产品A2级防火金属复合板具有强大的防火性能,不燃、无烟、无毒、无味、安全、环保、美观,且安装方便。产品己经在众多室内外装饰项目上得到应用,并持续不断地提高产品品质和服务质量以满足市场需求。

公司还将与国际著名的阳极氧化铝卷板制造商美国罗铝、荷兰欧麦等公司进行合作,生产高端的阳极氧化铝防火复合板,产品的品质和外观色彩尤其是表面强度将得到更高的提升。

Our main products are Class-A2 fire-proof metal composite panel. It features as strong fire-proof properties, flame-retardant, smokeless, non-toxic, odorless, safe, environment protection, attractive, convenient installation. The products are widely applicable for vast indoor & outdoor decoration projects. It sustainably enhances product and service quality in order to satisfy the market requirements.

The company cooperates with world-famous anodized aluminum coil manufacturer — US Alcoa, Holland Euramax coated products B.V. Etc. to produce high end anodizing aluminum fire-proof composite panel. It greatly enhances product quality and outline color. It is especially good for surface strength.



1975 - 美国 - 钛 尼米兹级航空母舰

2007 - 中国 - 钛 国家大剧院



## APPLICATION OF **METAL DECORATION MATERIALS IN** CONSTRUCTION

金属装饰材料 在建筑上应用













## **6 ADVANTAGE**

### 产品六大优势

#### 极佳的表现力/满足设计

具有极佳的表现力,丰富的色彩效果及个性化定制服务能够在 最大限度上满足建筑外墙及室内装饰设计需求。

#### 铝复合板

#### 辊涂涂层表面铝复合板:

其装饰涂层是高性能KANAR 500(或是 HYLAR 5000)70%以上PVD树脂制成的氟碳 出独特的高品质烤漆表面的复合板系列。在 铝卷连续阳极氧化处理不同于分批阳极氧 涂层, 具有优良的耐候性。可以有多样的 表面选择。这些涂层均是在连续的辊式涂 装线上完成, 色彩和光泽的一致性以及均 匀性较之其他涂装方式有很大的改进。

#### 高品质涂层表面铝复合板:

与全球知名图层面板厂商的共同合作, 研发 全球不同的气候条件下最高可提供长达40 年的使用寿命质保。产品有自然系列、金属 系列、拉丝系列、幻彩变色系列、高耐候 性系列,并可提供个性化定制服务。

#### 阳极氧化表面铝复合板:

与国际知名阳极氧化铝卷厂商合作开发。 化处理,确保了从铝卷始端到末端颜色都保 持一致,半透明的氧化层能使铝板呈现多彩的 金属质感外观。优良成熟的工艺为景观设计提 供了各种抗紫外的颜色: 从柔和的香槟金到优 雅的青铜色, 再带深黑色。阳极氧化层不会破 裂, 剥落或掉皮;不会像铜和锌那样产生风蚀; 不会像钢铁那样生锈。氧化层有复原功能可 承受极端的严酷环境。其硬度是铝本生的三 倍并提供了天然的抗磨损能力。



#### 其他金属表面复合板

#### 不锈钢复合板:

不锈钢具有良好的耐候性和使用寿命,由 于不锈钢是高反射材料, 能产生特殊的光 影,并根据环境产生不同的反射效果和环 境融为一体。符合技术改善了不锈钢内应 力引起的有关现象,提高了平整度。



#### 钛锌复合板:

钛锌金材料可百分百回收利用, 对环境环 保无害。随着岁月变化, 在他的生命历程 中不断钝化形成自然态的灰色氧化层。赋 予建筑"四维"变化。



#### 铜复合板:

铜在建筑中的应用历史悠久。铜包铝在空 气中随时间不断演化,呈现出不同的色彩 效果。





#### Remarkable expression / Satisfies design requirements

Metal Composite Panel has remarkable expression, rich color effects and individual custom-made service satisfy building external wall and indoor decoration design requirements to greatest extent.

#### Aluminum Composite Panel

Roll coating surface aluminum composite panel:

Decoration coating is fluorocarbon coating made of high performance KANAR 500 (or HYLAR 5000) over 70% PVD resin. It has superior weather-resistance, diverse surface options. These coatings are completed through continuous roller coating lines. Compared with other coating modes, it greatly improves color and luster consistency and evenness.

High quality coating surface aluminum composite panel:

Through jointly cooperating with famous global coating panel manufacturers and traders, it researches into and develops uniquely high quality baked enamel surface composite panel series. Under different global weather conditions, it offers as long as 40 years' service life quality guarantee. Products are natural series, metal series, wire-drawing series, fancy color & color change series, highly weather-proof series. It also offers individual custom-made services.

Anodizing surface aluminum composite panel:

It cooperates with world-famous anodizing aluminum coil manufacture and trader to develop anodizing surface aluminum composite panel. Aluminum coil continuous anodizing treatment is different from separate-batch anodizing treatment. It ensures consistent color in the whole aluminum coil. Semi-transparent oxide layer supplies colorful metal texture outline to aluminum sheet. Superior & well-developed craft provides sight-seeing design with various anti-UV colors from soft champagne gold to graceful bronze and deep black. Anodizing layer does not break, peel off or scaling. It has no wind erosion like copper and zinc. It does not rust like steel and iron. Oxide layer has recovery function. It can bear extremely harsh environments. Its hardness is three times higher than that of aluminum. It offers natural wear-ability.

#### Other metal surface composite panels

Stainless steel composite panel:

Stainless steel has good weather-resistance and long service life. As stainless steel is high reflection material, it produces special light shade. Its reflection effect integrates with environment into one according to different environments, Its technology improves related circumstances caused by stainless steel inner stress. It enhances flatness.

Titanium-zinc composite panel:

Titanium-zinc-gold materials can be 100% recovered. It is harmless to environmental protection. Following change of time, its continuous passivation forms naturally gray oxide layer. It endows building with "4D" change.

Copper composite panel:

Copper has long history in building application. Copper clad aluminum makes continuous evolution in the air according to change of time. It displays different color effects.

#### 02

#### 极强的安全性 / 可靠放心

具有强大的防火优势,产品达到A2 级防火要求,1500摄氏度高温下2小时不烧穿。

## Extremely strong safety / Reliable & trustworthy

Metal Composite Panel is strongly fire-proof. It attains Class-A2 fire-proof requirements. It does not burn through within 2 hours under 1500°C high temperature.





1500℃燃烧对比试验开始

25秒后普通铝塑板被烧穿







58秒后铝单板被烧穿

16分钟后,B级防火铝复合板被烧穿 2小时后,A2级防火金属复合板安全无恙

#### N3

#### 极致的平整性 / 永不变形

不同于传统的铝塑板有机芯材,采用了特殊芯材及专业复合技术保障了板材强度及剥落强度等各项检测, 无机芯材与金属表面同步收缩率,减少了因两种材质不同膨胀系数引起的内应力,因而具有极致的牢固性,产品极致平整,永 不脱胶变形。

#### Extremely flat / Never be deformed

Metal Composite Panel is different from traditional aluminum-plastic sheet organic core material. It applies special core material and professional composite technology to pass various tests such as plate strength test, peel-off strength test etc. Inorganic core material synchronizes shrinkage with metal surface. It reduces inner stress caused by different dilatation coefficient of two materials. It is extremely firm and flat. It does not come unglued or get deformed forever.

#### 04

#### 极佳的环保性 / 绿色无机

采用的无机芯材来自天然,绿色环保,可持续发展。减少了金属及冶炼能源用量,并减少碳排放,具有极佳的环保性。同时无机芯材不含放射性有害元素,无卤、无烟、无毒、无味。铝板幕墙10000㎡用铝复合板代替,节约铝材54吨。不锈钢幕墙10000㎡用不锈钢复合板代替,节约不锈钢70吨。铜幕墙10000㎡用铜复合板代替,节约铜107吨。

#### Extremely good environment protection / Green inorganic

Metal Composite Panel applies inorganic core material with green, natural environment protection. It reduces use amount of metal and metallurgy energy. It cuts down carbon emission. It is remarkably environment protection. Meanwhile inorganic core material does not contain harmful radioactive elements. It has no halogen, no smoke, no poison, no odor. If 10000 m² of aluminum sheet curtain wall is replaced by aluminum composite panel, it saves 54 tons of aluminum. If 10000 m² of copper curtain wall is replaced by stainless steel composite panel, it saves 70 tons of stainless steel. If 10000 m² of copper curtain wall is replaced by copper composite panel, it saves 107 tons of copper.

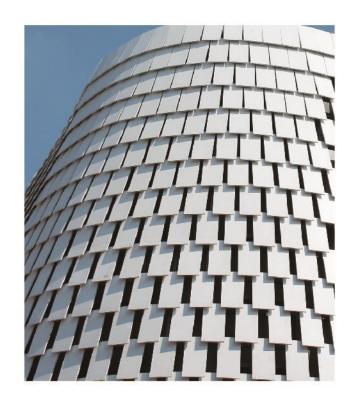
#### 05

#### 极强的延展性/任意分割

具有极强的延展性,在保证板面平整度等各项性能前提下,最大单板可达宽度1.6m,长度6m甚至更长,更大更任意的平面分割尺寸,极大满足了设计要求。A2级防火复合板重量轻,工字型结构稳定,平整无变形,可以达到更大更任意的板块分割要求。

## Extremely strong ductility / Free segmentation

Under the premise of ensuring various properties such as panel flatness etc., largest single panel fulfils 1.6m width, 6m length and even longer. It more freely and largely cuts plane sizes. It greatly satisfies design requirements. Class-A2 fire-proof composite panel is light in weight, stable in I-shaped structure. It is flat without deformation. It can fulfill more free and larger sheet cutting requirements.



### 06

#### 极致的品质性/隔音隔热

不断追求产品极致的品质性。

4mm的 A级防火铝复合板隔音参数为26dB,其优越的隔音性能领先于其它类似材料。防火板由于均匀细孔,无机芯材的特征,其导热系数为0.31w/m.k,可有效地节约能源的消耗。通过复合技术减轻了金属装饰材料的重量,减轻了建筑的荷重,可节约基础和主体结构的造价。



#### Superior quality / Sound & heat isolating

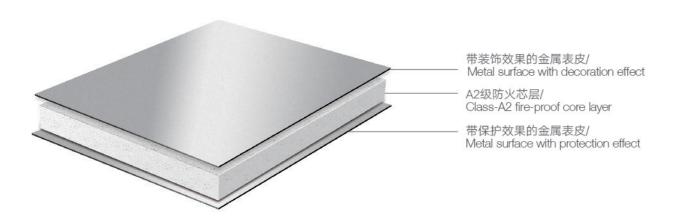
26dB is sound isolating parameter of 4mm Class-A fire-proof aluminum composite panel. Its advantageous sound-isolating properties lead that of other similar materials. Fire-proof panel has even tiny pores. It accords with characteristics of inorganic core material. Heat-conducting coefficient is 0.31w/m.k. It can effectively save energy consumption. It reduces weight of metal decoration material through composite technology. It lowers down building load. It saves cost of foundation and main structure.

## PRODUCT INTRODUCTION

### 产品介绍

#### SHEET MATERIAL

板材结构



A2级防火复合板是一种利用不燃无机物作为芯层,两面金属表皮作为装饰面,通过特殊工艺进行成型和复合的装饰材料。不仅可以应用在建筑领域,还可广泛应用于广告形象表示等其他领域。

Class-A2 fire-proof composite panel utilizes non-flammable inorganic substance as core layer, two-side metal surface as decoration face. Decoration material is formed and compounded through special craft & technology. It is applicable for construction field, other fields such as advertisement image display etc.

#### SPECIFICATION AND SIZE

#### 规格尺寸

| 产品信息 (Product Information) | 阿路佑邦ALUUPOW              |
|----------------------------|--------------------------|
| 板材厚度 (Panel Thickness)     | 3 4 5 6 (mm)             |
| 板材宽度 (Panel Width)         | 1000 1250 1500 1575 (mm) |
| 板材长度 (Panel Length)        | 2000-6000 (mm)           |
| 金属表皮厚度 (Skin Thickness)    | 0.3-0.5 (mm)             |

特殊宽度/厚度/长度要求请询厂家

Please consult the manufacturer for special width / thickness / length requirements

#### MAIN PHYSICAL PROPERTIES

#### 主要物理性能

#### 幕墙、内墙板的性能表 Curtain wall, inner wall panel performance table

| 项目 (Item)                                  |                                     | 技术要求 (Technical requirements) |                 |  |
|--|-------------------------------------|-------------------------------|-----------------|--|
|  |                                     | 幕墙 (Curtain wall)             | 内墙 (Inner wall) |  |
| 弯曲强度 (Bending strenght)/Mpa                |                                     | ≥120                          | ≥70             |  |
| 弯曲弹性模量 (Bending elasticity modulus)/Mpa    |                                     | ≥2.5*104                      | \               |  |
| 贯穿阻力 (Pene                                 | ≥8.0                                | \                             |                 |  |
| 剪切强度 (Shea                                 | ≥25.0                               | \                             |                 |  |
| 180° 剥离强度                                  | 平均值 (Average value)                 | ≥7.0                          | ≥4.0            |  |
| 180° Peel strength(N/mm)                   | 最小值 (Minimum velue)                 | ≥6.0                          | ≥3.0            |  |
| 耐温差性 Resistance of temperature difference) | 剥离强度下降率 (Peel strength down rate)/% | ≤10                           | ≤10             |  |
| 热膨胀系数 (Coefficie                           | ≤3.00*10-5                          | \                             |                 |  |
| 热变形温度 (Heat de                             | ≥98                                 | >                             |                 |  |
| 耐热水性 (Resistance to hot water)             |                                     | 无异常 No trouble                | \               |  |

#### FIRE-PROOF PROPERTIES

防火性能

#### 复合板的燃烧性能表 Combustion performance table of composite panel

| 序号                            | 检验项目 (Inspecting item)                                      |                           | 检验方法 (Inspection method) |      | ection method) |
|-------------------------------|---|---------------------------|--------------------------|------|----------------|
| 1                             | 燃烧增长速率指数 (Combustion growth speed ratio index ),W/s         |                           | GB/T 20284-2006          |      | ≤50            |
| 2                             | 600s内总热释放量 (Total heat release amount within 600 second),MJ |                           | GB/T 20284-2006          | A2   | ≤3             |
| 3                             | 火焰横向延绵长度 (Transverse length stretches of flame ),m          |                           | GB/T 20284-2006          |      | <试样边缘          |
| 总热值 (Total heat value ) (PCS) | 铝板 (Aluminum sheet) MJ/kg                                   | 铝板 (Aluminum sheet) MJ/kg | GB/T 14402-2007          |      | ≤0.5           |
|                               |   | 芯板 (Core plate) MJ/kg     | GB/T 14402-2007          |      | ≤3.0           |
|                               | 整体制品(Core plate)MJ/kg                                       | GB/T 14402-2007           |                          | ≤2.8 |                |
| 5                             | 烟气生成速率指数 (Smoke production speed ratio index),m2/S2         |                           | GB/T 20284-2006          | S1   | ≤30            |
| 6                             | 600s内总产烟量 (Total smoke amount within 600 second ),m2        |                           | GB/T 20284-2006          | 01   | ≤50            |
| 7                             | 燃烧滴落物/微粒 (Combustion drip / particle)                       |                           | GB/T 20284-2006          | do   | 600s内无燃烧滴落物/微粒 |
| 8                             | 产烟毒性,级 (Smoke toxicity & grade)                             |                           | GB/T 20285-2006          | to   | 达到ZA1          |

09/10

## **ROUTING-FOLDING**

#### 开槽折边



#### **METHOD**

#### 方法

金属复合板的主要特征是他能用比较简单的技术 进行开槽和折边,从而方便加工成型,加工商用手工方法 生产出各种不同形状的板,而不需要使用折弯机等大型加 工设备。

开槽时,使用圆盘锯和或铣刀在板的背面沿着所有折的边线开出V型槽或者方形槽,槽口的底部及外层面板的内侧,要保留0.3mm的芯层。这边的半径取决于槽的形状和深度(约为2-3mm)。为切割的外层铝板可以通过手工折弯,沿着开出的槽口形成精确而平整的折边。

Main characteristics of metal composite panel: It uses simple technology for grooving and edge-bending. It is thus convenient for machining and shaping. It applies commercial manual methods to manufacture various shapes of sheets. It needs no large scale machining equipment such as bending machine etc.

我们推荐配有开槽专用刀具的开槽机或者小型便携式切割机。传统的手动开槽设备可以用弧形开槽或工作量很小的情况如项目收尾时的边角板。对于复杂的造型,可以使用精度非常高的大型数控加工中心。开槽和折边的加工方法适用于所有标准表面涂层的铝复合板。传统的手工开槽设备(所有适合的开槽刀头)可以用于户型开槽以及工作量非常小的工作。

We recommend to using grooving machine with grooving special-purpose tool or small & handy cutter.

Traditionally manual grooving machine executes arc grooving or corner plate by the end of project while work-load is not much. Regarding complex model, it applies high precision large-size CNC machining center. Grooving and edge-fold machining methods are applicable for all standard surface coating aluminum composite panel. Traditional manual grooving machine (all suitable grooving tool bits) can be used for unit grooving and works with little work-load.

#### 优点

铝复合板开槽折边技术的优点有:

- \*加工设备投资抵
- \*加工技术简单易行,非熟练工人也能很快掌握(再使用专用刀具的前提下)
- \*这边即可以在工地,也可以在现场进行,从而减少包装及运输成本,并减少了搬运工程中可能造成的损坏。 低成本加工成型构件,例如:檐口、挂板、屋檐、包柱板及遮雨板等
- \*可实现不同的设计造型
- \*十分经济,并保持外墙装饰的高品质
- \*即使设备做不出的造型,也可以采用特殊方法加工
- \*特殊的板块可以在现场方便的加工和安装

#### 好处

手工开槽机及铣床可以再车间也可以在项目工地使用, 当批量加工成型板时,使用专用开槽机:当加工大批 量板时,建议使用固定开槽机,在工厂加工生产,质 量稳定,效率高,成本低。

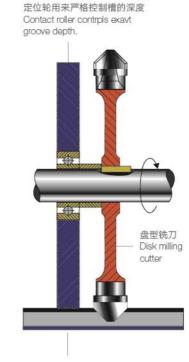
#### **ADVANTAGES**

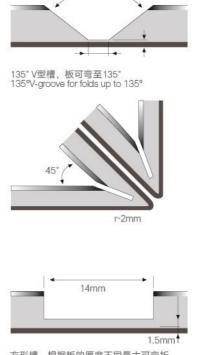
- Advantages of aluminum composite panel grooving & edge-fold technologies are as follows:
- \* Low investment of machining equipment
- \* Machining technology is easy and workable. Even not skilled workers can do it. (Under the premise of using special-purpose tools)
- \* Edge-fold can be done at site or in construction site. It thus reduces transport cost of packing machine. It also cuts off any possible damage during delivery process.
- \* Low-cost machining, shaping, constructing such as comice, clevis, clad plate, flashing etc.
- \* It can fulfill different design models.
- \* It is very economical. It keeps high quality of external wall decoration.
- \* As for special models which can not be done by equipment, it can also apply special methods for machining.

  Special panel can have convenient site machining and installation.

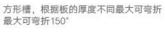
#### **ADVANTAGES**

Application of manual grooving machine / miller can be done in workshop or project work-site. Regarding batch machining of molding panels, special-purpose grooving machine can be used. For machining of large batch panels, it suggests using fixed grooving machines. Factory machining & manufacture feature as stable, effective, low cost.

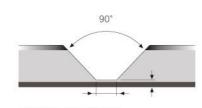




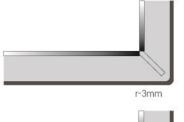
135°



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



90° V型槽,板可弯至90° 90°V-groove for folds up to90°





如需详细信息,请参照 加工技术手册

For futher information please ask for oir brochure processing.

# INFORMATION -FIRE PROTECTION

### 产品应用须知及防火性能

#### POINTS FOR ATTENTION IN APPLICATION

应用须知

#### 加工/安装

A级防火复合板安装简便,有多种方法可以选择, 传统的铝塑板骨架固定安装方式或是最新的平片嵌入式都 可以用来进行安装。在机具的帮助下,还可以方便地做圆 弧造型或是包圆柱。本复合板最突出的优点是板材的平整 度超高,即使是长达6米整片地安装也可以达到高质量的平 整度。

#### 储存/维护

- 1、货物到达后请立即检查在运输中是否破损或受潮,如 受潮应立即将包装箱打开自然通风干燥以免受到进一步腐 蚀。并在第一时间联系销售人员以及落实后续保险公司索 赔:
- 2、及时检查库存板材的存放环境,切勿露天堆放或是放在漏水或潮湿的仓库中。如不慎沾水或受潮,请不要用外力去损坏,请立即晾干,并联系我司确认是否板材受损;
- 3、货物箱应平置放置,不可以竖放。货箱码放高度不应超过4层,重的箱子放在下面;
- 4、当从箱子中向外取板时,由至少两个人戴上手套抓住板的四个角向上抬起,超大板应相应增加人数,不可水平拖拉,否则有可能会损坏板面。

#### Processing / Installation

Class-A fire-proof composite panel is simple & convenient in installation. Multiple methods are available for options. Installation can be done through traditional aluminum-plastic panel framework fixed installation mode or the latest flat embedding type. With help of machine, it can conveniently finish are model or cylinder clad. Best advantage of composite panel is super high flatness of panel. Even 6m whole panel installation can fulfill high quality flatness.

#### Storage / Maintenance

- After goods arrival, please immediately check for any damage or damp in transport process. Regarding damp goods, please open packing boxes in natural ventilation drying. It prevents from further corrosion. Please contact salesman and settle down later claim from insurance company as soon as possible.
- Please check in time storage environments of inventory panels. Do not expose outdoor or put them in water-leaking / damp warehouse. In case inventory gets wet or damp, do not forcibly damage them. Please dry them immediately. Meanwhile confirm with company whether goods are damaged or not.

Please horizontally place goods boxes in flat area. Stacking height no more than 4 layers. Put heavy boxes beneath in low places.

4. While taking panels out from boxes, at least two people wearing gloves grasp four corners of panel and lift upwards. Super large panels shall be lifted by more people accordingly. It is forbidden to horizontally pull / drag panels, otherwise panel surfaces will be damaged.

- 5、遵循先进先出的库管原则。确保库存产品不超过6月,如因特殊情况放置到6月,请及时检查保护膜的特性。如有必要,请及时联系我司确认是否需要更换保护膜,以免引起不必要的移胶或是其他现象。
- 6、产品安装于室外后,请尽快撕揭保护膜。如长期遭受UV 照射,保护膜会粉化或是移胶从而造成撕揭困难。正常室 外条件下我司保护膜具备6个月的耐候性。
- 5. Please abide by inventory principle of prior-entry & prior exit. Be sure that inventory does not exceed 6 months. If it is stored for 6 months because of special condition, please check characteristics of protection film in time. If necessary, please promptly contract our company whether protection film shall be renewed or not. It can thus prevent from unnecessary glue movement or other bad circumstances.
- 6. Please abide by inventory principle of prior-entry & prior exit. Be sure that inventory does not exceed 6 months. If it is stored for 6 months because of special condition, please check characteristics of protection film in time. If necessary, please promptly contract our company whether protection film shall be renewed or not. It can thus prevent from unnecessary glue movement or other bad circumstances.







# INSTALLATION AND APPLICATION SYSTEM

## 安装及应用系统

安装简便,有多种方式可以选择,传统的铝塑 板骨架固定安装方式或是最新的平片嵌入式都 可以用来进行安装。

在机具的帮助下,还可以方便地做圆弧造型或是 包圆柱。本复合板最突出的优点是板材的平整度 超高,即使是长达6米整片地安装也可以达到高质 量的平整度。

注: 可根据方案特殊要求, 提供节点深化专业设计。

Class-A2 fire-proof metal composite panel is simple and convenient in installation.

Various modes are available for options.

Installation can be done through traditional aluminum-plastic panel framework fixed installation mode or the latest flat embedding type.

With help of machine, it can conveniently finish arc model or cylinder clad. Best advantage of composite panel is super high flatness of panel. Even 6m whole panel installation can fulfill high quality flatness.

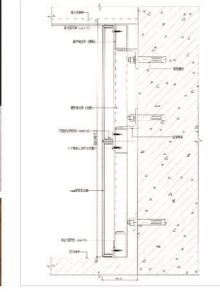




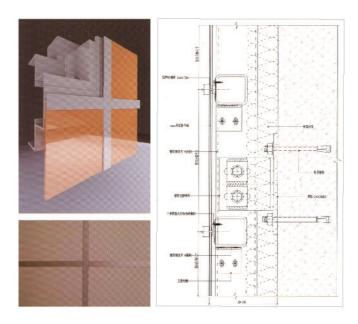
STREET LOCAL
STREE

密闭离缝系统 / Air-tight open joint system 适合室内 / Good for indoor

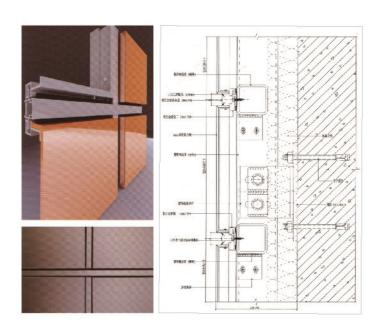




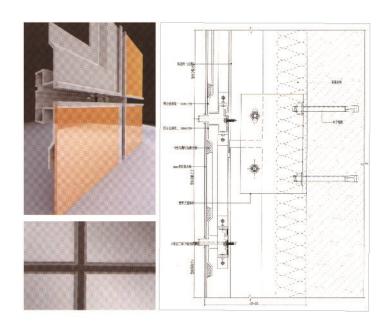
密闭无缝系统 / Air-tight seamless system 适合室内 / Good for indoor



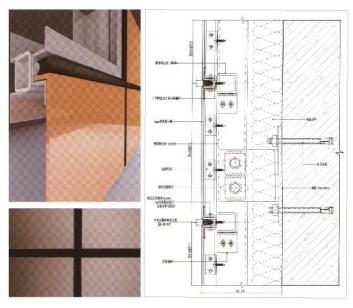
平板插入系统 / Flat panel plug-in system 适合室外 / Good for outdoor



盒形板嵌入缝系统 / Box panel embedded seaming system 适合室外 / Good for outdoor



平板明框系统 / Flat panel exposed framing system 适合室外 / Good for outdoor



盒形板打胶系统 / Box panel gluing system 适合室外 / Good for outdoor

## PROMPT & CONVENIENT MACHINING MODES

### 便捷的加工方式



A2级防火金属复合板 可以通过各种方式进行裁剪,通用剪板机可轻易进行切板定尺。

Class-A2 fire-proof metal composite panel can be cut through various modes. Different sizes can be easily cut and fixed through plate shearing machine.



如果有打孔的需要,用普通钻头就可以轻松进行板上打孔。(如产品应用于室外,不建议在板上打孔) For punching requirement, ordinary drill can easily punch holes in plate. (If product is used for outdoor, punching in plate is no good.)



可以与传统铝塑板一样进行弯弧或是包圆柱,利用三银 弯弧机或液压弯弧机做各种造型。

Arc bending or cylinder clad can be done like traditional aluminum-plastic sheet. It utilizes three-roller arc bending machine or hydraulic arc bending machine to make various models.



通过在 A级防火板的背面开U型槽的方式可以 对板材进行折边处理。

Through opening U-shaped groove at back of Class-A fire-proof panel, it executes edge-fold treatment to the panel.



普通的桌锯或是手锯也可轻易加工,在施工现场进行尺寸调整,方便快捷。

Ordinary table or hand saw for easily machining. It is prompt and convenient to adjust size at construction site.



冲床打孔也是可以采用的加工方式。(如产品应用于室外,不建议在板上打孔)

Punching is machining mode also. (If product is used for outdoor, punching in plate is no good.)



可以使用螺栓,螺母或是铆钉等连接方式把板材与基础(如铝型材)进行固定或是粘接。(建议要使用不锈钢或是铝制的连接材料以避免可能发生的生锈或是腐蚀)It can use connection modes such as bolt, nut or rivet etc. to fix or splice plate, foundation such as aluminum profile etc. (It suggests using stainless steel or aluminum connection materials in order to prevent from rust or corrosion.)



在进行大批量的板材加工时,可以使用立式或是CNC的平台加工中心。

Regarding large batch panel machining, it can apply vertical or CNC platform machining center.

## **AUTHENTICATION**

### 权威认证 品质保证

板材通用性能(以4mm标准版为例) Panel properties (for 4mm standard panel)

来自intertek天祥以及国家检验中心的报告数据汇总 Form intertek etc. test report summary

| 测试标准<br>Test method | 项目<br>Item                                  | 单位<br>Unit          | 结果<br>Results       |
|---------------------|---|---------------------|---------------------|
|                     | 板重<br>Panel weight                          | Kg/m²               | 8.2                 |
| ASTMC518-2010       | 导热系数<br>Thermal conductivity                | W/m.k               | 0.31                |
| ASTMD790-2010       | 弯曲性能<br>Flexural properties                 | Мра                 | MOR:111<br>MOE:6586 |
| ASTME8-2011         | 抗拉强度<br>Tensil strength                     | Мра                 | 51.9                |
| ASTMD903            | 剥离强度<br>Bond strength                       | N/mm                | 7                   |
| ASTME831-2012       | 线性热膨胀<br>Linear thermal expansion           | um/(m. 'C)          | 20.7                |
| ASTME413-2010       | 隔音量<br>Sound transmission loss              | dB                  | STC=26              |
| GB/T 17748          | 幕墙用铝塑板标准<br>Aluminum panel for curtain wall | 全套指数<br>Full system | 通过<br>Certified     |

防火特性(以4mm标准版为例) FR Properties (for 4mm standard panel)

各测试机构数据汇总 Form SGS etc. test report summary

| 测试机构<br>Third party   | 测试标准<br>Test standard | ALMINE样品<br>ALMINE specimen | 结论和分级<br>Results&Classiication              |
|---|-----------------------|-----------------------------|---|
|   | BS476Part7            | 4mm                         | Class1                                      |
| TUV   | BS476Part6            | 4mm                         | Index0                                      |
| SGS   | DIN4102Part1          | 4mm                         | ClassA2                                     |
|   | EN13501               | 4mm                         | ClassA2,S1,d0                               |
| Intertek  | ASTME84-2012          | 4mm                         | Flame Spread Index=0<br>Smoke Deve Index=10 |
|   | ASTME119-2012         | 4mm                         | 2h通过<br>2hours pass                         |
|   | EN13501               | 4mm                         | ClassA2,S1,d0                               |
| 国家防火建筑材料检测中心<br>Chinahational frector building<br>materials testing center) | GB8624-2012           | 4mm                         | ClassA(A2,S1,d0,t0)                         |

| 測试机构 Test instiution       | 測试名称 Test name                    | 测试和通过认证主要内容 Test and cerity main content   |
|----------------------------|-----------------------------------|--|
| 北京 beijing building        | 放射性检测 Radioactivity               | 中国GB6566A类装修材料放射性标准检测认证 China GB6566 class a level certification for radioactivity                 |
| 北京 beijing building        | 幕墙检测 Facade property              | 中国幕墙气密性能、水密性能、风压等检测认证<br>China facade certification for water tightness performance,wind load etc. |
| NOVO                       | CE认证 CE certify                   | CE认证 CE certify  |
| INTERTEK / national center | 绿叶认证 Greenleaf                    | 无重金属等其他有害物认证 Heavy metal content qualify   |
| 国测 / national center       | 环保标志 Green product                | 中国环保建材证书 China green building products certification   |
| cac                        | 质量认证 Quality certification        | ISO090012008认证书 ISO9901 2008 certification   |
| TUV                        | 实地认证 Field assessment certificate | 环球制造工厂实地认证 Global manufacturer certification   |

我们的技术质量标准与国际接轨,从原材料到设备均采用世界一流品牌。例如,设备的自动连续生产技术使用ABB与西门子的自动控制技术。涂料卷采用中国知名的中国铝业的产品,预处理采用美国通用的技术,涂料采用AKZO,PPG,BECKER 国际知名品牌的氟碳涂料技术。本品牌郑重承诺我们交付的产品可以通过中国和世界的权威检测机构的在线抽检。

Our technical quality standard keeps in pace with advanced international standard. From raw material from equipment, it always applies the world's first-class

For example, automatic & continuous production technology of the equipment uses ABB and Siemens automatic control technology.

Coating coil applies famous Chinese aluminum products. Pretreatment uses American general purpose technology.

Coating applies AKZO, PPG, BECKER International Famous Brands fluorine-carbon coating technology.

We pledge that our delivered products pass on-line spot check from Chinese and International Authority Testing Institutes.

# PRODUCT APPLICATION EXTERNAL INSTALLATION FIELD

## 产品应用外装领域



商务大厦 Business building



医院 Hospital



体育馆 Stadium



机场 Airport



汽车4S店 Auto 4S shop



商场 The mall



会展中心 Exhibition Center



厂房 Factory building



火车站 Train station



研发中心 R & D Center



图书馆 Library



生活馆 Living Museum

# PRODUCT APPLICATION INTERNAL INSTALLATION FIELD

产品应用内装领域



地铁站 Subway station



机场 Airport



走廊 Corridor



办公室 Office



火车站 Train station



隧道 Tunnel