

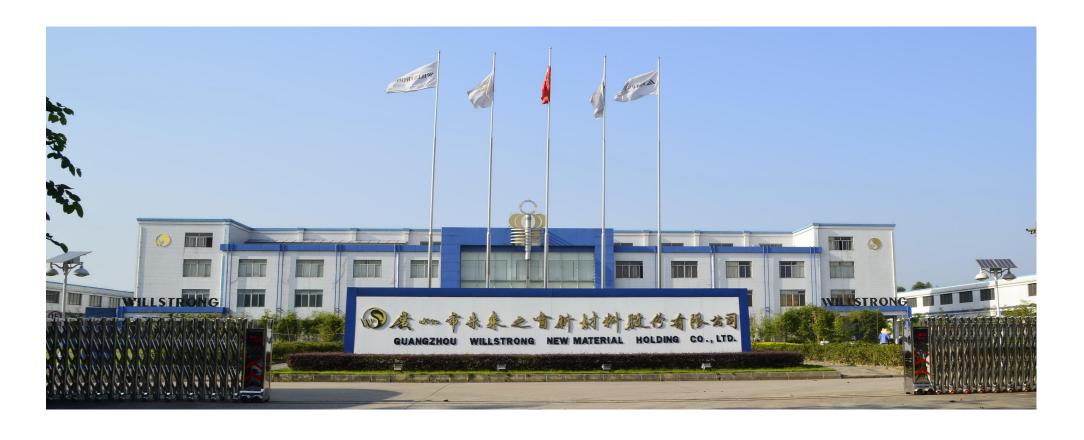
WILLSTRONG

the supplier of integrated Aluminum Composite Products

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- 1. General Info & Philosophy
- 2. Services & Product Solutions
- 3. Advantage of WILLSTRONG products
- 4. Typical Products
- 5. Quality Control & Certificates
- 6. Processing & Installation reference
- 7. Projects





Location: State-level development zone

Floor Area: 40,000 square meter

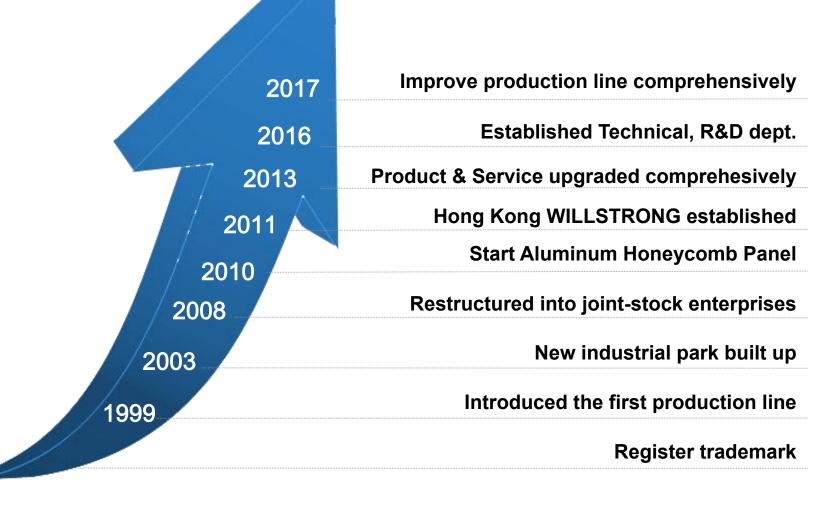
Huangpu Port: 12 km

Baiyun Int'l Airport: 45km

ISO9001 ISO14001 OHSAS18001

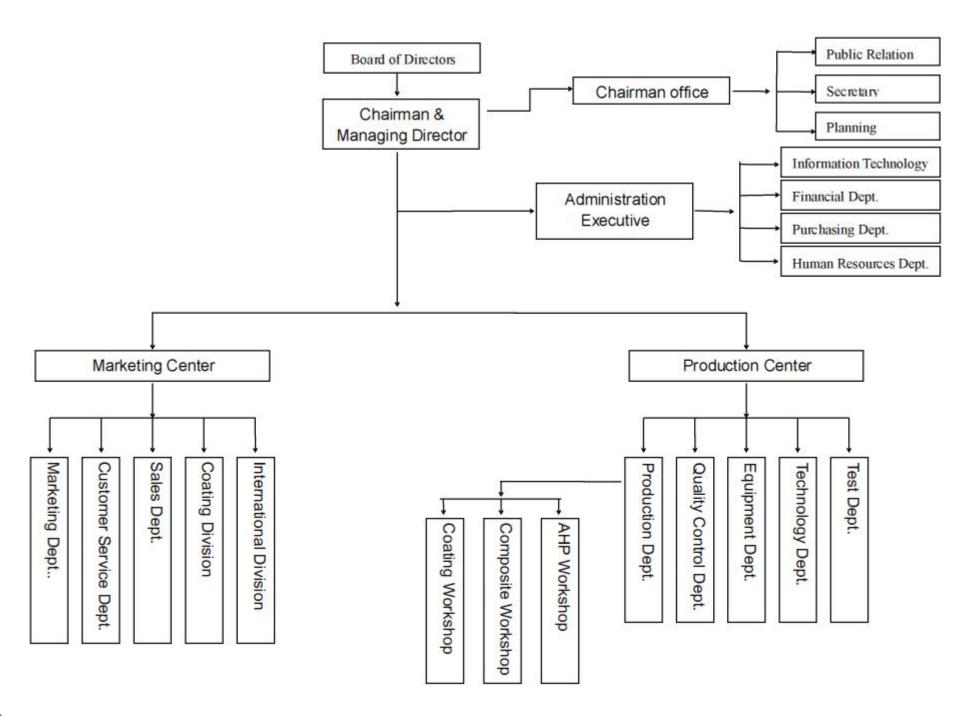


the supplier of integrated Aluminum Composite Products





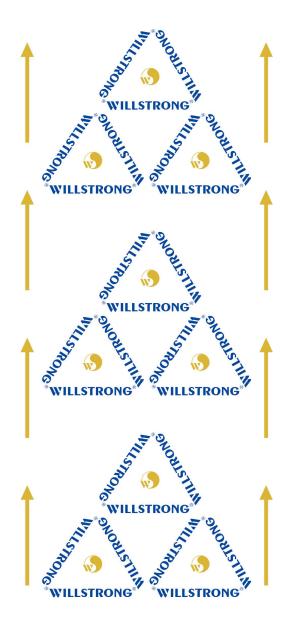
1995











Production Equipments

Dust-free coating workshop
High-precision extrusion lines
Professional metal processing facilities
Automatic continuous composite lines
Fire-proof core material production line
State-of-the-art honeycomb panel production line
Plastic film blowing machine

Supplying Capability

4,000,000 sqm of ACP/fr 190,000 sqm of metal honcycomb panel 17,000 ton of color coated aluminium

numerous colors and surface finishes including solid, metallic, stone/marble, wood, brushed finishes, mirror, anodized, antibacterial ...

Quality management system comply with ISO9001:2008



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Product & Services Solutions

Metal Skin Materials

Core Material

Color and Finishes

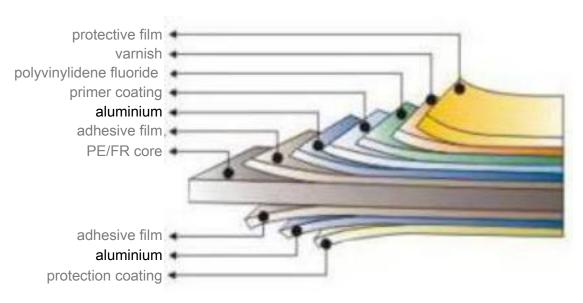
Designing and Processing

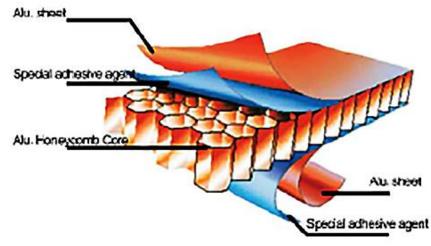
Installation Method

Packing and Transportation

WILLSTRONG's skilled team always work hard to providing architect, contractor, owner satisfying solutions to materials, so as to enable the finished products meet equirements to freedom design and offer best perofrmance.



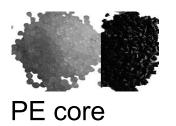




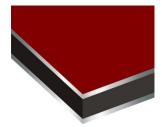
Aluminum
Zinc
Titanic Composite Panel
Copper
Stainless steel

Aluminum
Zinc Honeycomb Panel
Titanium
Stainless steel



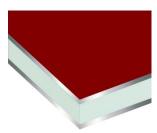


Formability, flatness, economical, nontoxic





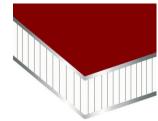
Fire resistance, safety







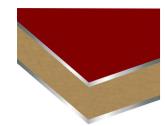
Light weight, rigidity



Hexagon alu. honeycomb core

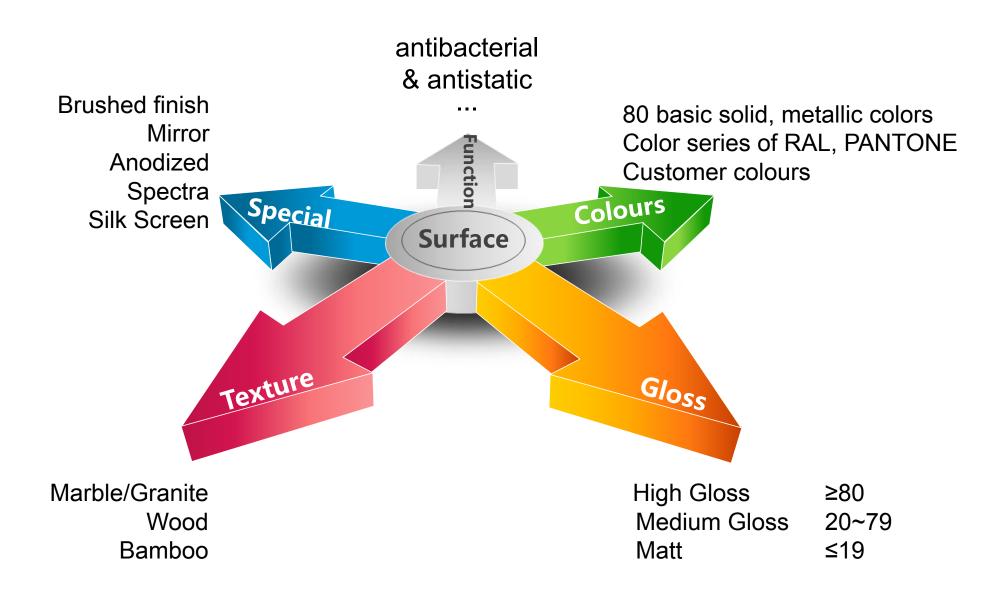


Light weight, insulation



PU core

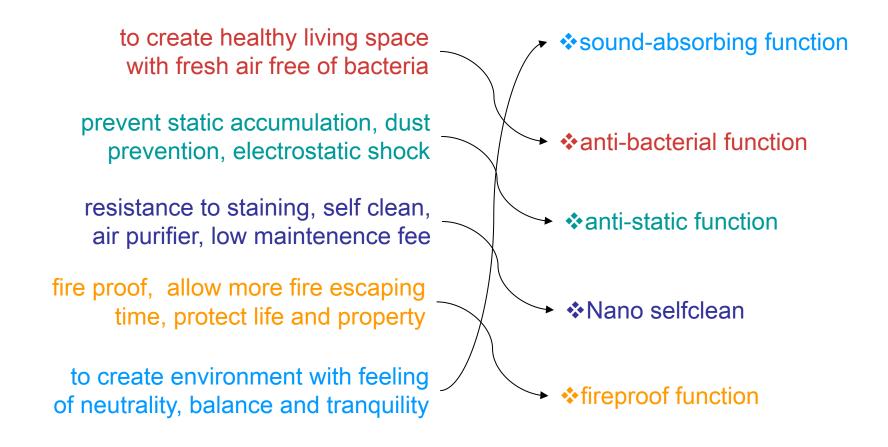




All the coating is free of Chrome



The functionality of architectural materials are being increasingly taken into consideration. WILLSTRONG have already developed products with variety functions.



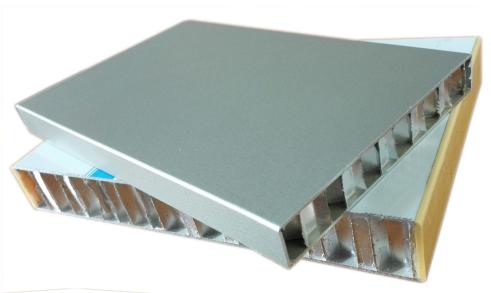
Working on products with more functions





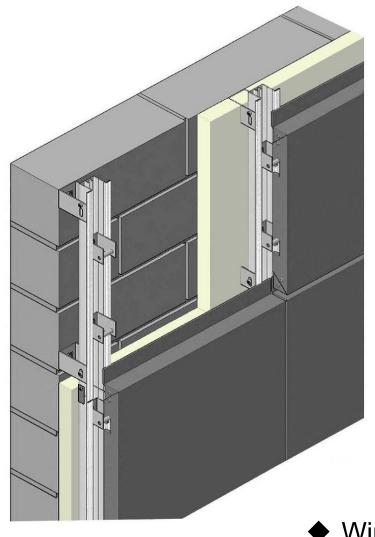






Excellent machinability, free shape design, WILLSTRONG products can achieve shapes far morn than you imagine





By joint working with architects, owners, bespoke and safe fixing systems can be worked out to create uniqueness of projects.

Anti-seepage and dewatering

◆ Wind Load resistance

Air tightness

◆ In-plane deformation

◆ Lightning protection



Safety

Cost saving

Convenience

Quickness



Satisfying Packing & Transportation











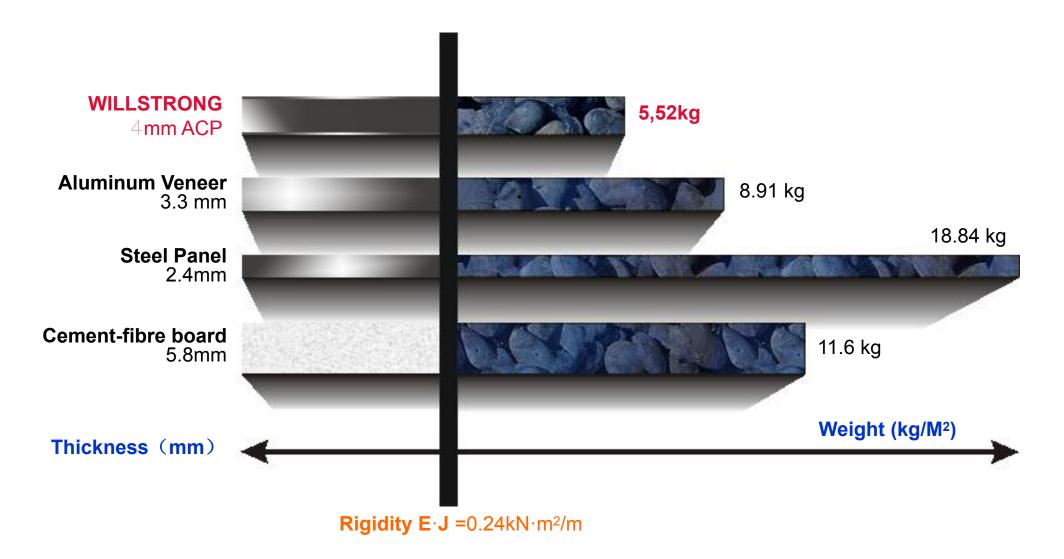


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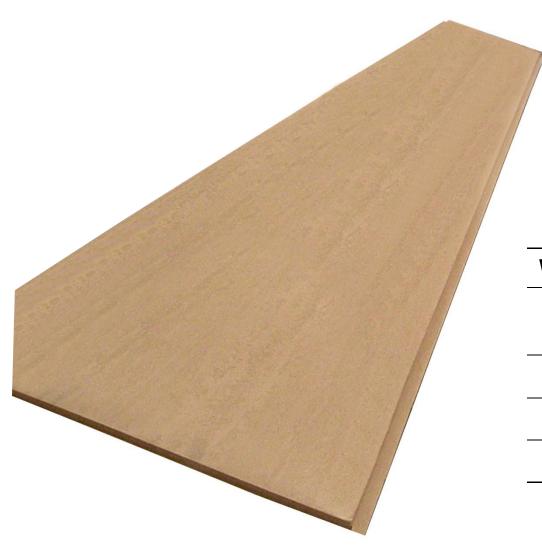


ACP offers Incomparable Weight to Rigidity Ratio





Honeycomb Panel offers perfect light weight and big sizes





WILLSTRONG® AHP		Granite		
Thickness (mm)	kg/m²	Thickness (mm)	kg/m²	
10	6.5	20	52.0	
15	7.0	25	60.0	
20	7.6	30	78.0	



Excellent Weather Resistance

 ${f \ref{eq}}$ Color Retention: Maximum of ${f 5} \triangle {\sf E}$ units of color change

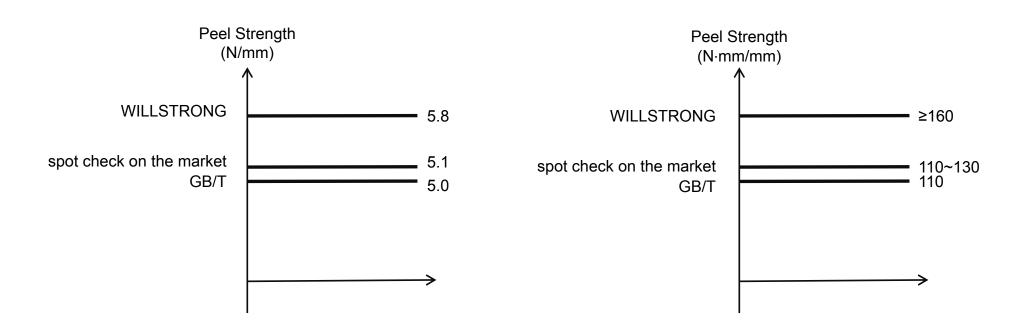
₹ Gloss Retention =
$$\left(\frac{60 \text{ °gloss exposed}}{60 \text{ °gloss unexposed}}\right) \times 100\% \ge 50\%$$

Resistance to Erosion =
$$\left(1 - \frac{\text{Dry film thickness exposed}}{\text{Dry film thickness unexposed}}\right) \times 100\% \le 10\%$$





Excellent Peel Strength



ACP for ordinary decoration

ACP for architectural wall cladding



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▲ : available △	: on request.	Customer sizes, colors and surface	es are availale on request.

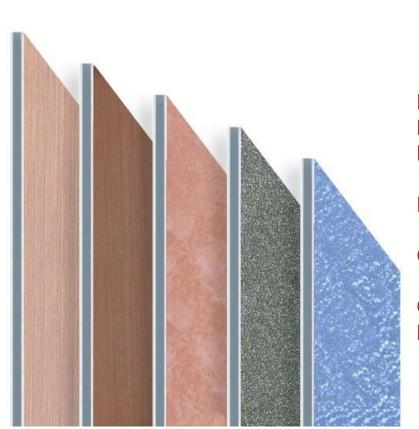
Series	Thickness		Width (length: 2000mm ~11000mm)				
	3 mm	4mm	1220mm	1250mm	1500mm	1575mm	
WILLSTRONG® acp		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
WILLSTRONG® nano		<u> </u>	<u> </u>	<u> </u>	<u> </u>	Δ	
WILLSTRONG® fr	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Δ	
WILLSTRONG® eco	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Δ	
WILLSTRONG® antibacterial	_	<u> </u>	<u> </u>	<u> </u>			
WILLSTRONG® antistatic		<u> </u>	<u> </u>	<u> </u>			
WILLSTRONG® dual		<u> </u>	<u> </u>	<u> </u>	Δ		
WILLSTRONG® nature	Δ	_	<u> </u>	Δ	Δ		
WILLSTRONG® mirror		<u> </u>	<u> </u>				
WILLSTRONG® brush	_	_	<u> </u>				
WILLSTRONG® ZCP		<u> </u>	<u> </u>	Δ			
WILLSTRONG® AHP	Thickness: 6mm,10mm,15mm,20mm,25mm; 35mm Width: 1220mm, 1250mm, 1500mm Length 2400mm, 3200mm, 4000mm, 5800mm						
Color Coated aluminum coil	Thickness: 0.1~1.5mm, Width up to 1600mm						

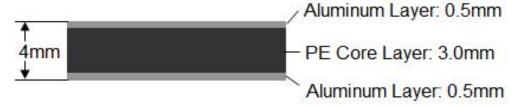


➤ WILLSTRONG® acp

The essential product of the company

Your ideal choice for interior/exterior wall





Ligth weight: 1 sq.meter≈5.5kgs

High rigidity: withstand strong wind load

Flatness: deliver excellent appearance Variety surface colors:

aesthetic, match with the surroundings

Long durability: polyvinylidene fluoride offers strong weather

resistance

Good machinability: both portable tools and CNC can work

on it.

Cost saving: less aluminum + PE, large-scale production

Eco friendly: recyclable, no harmful radiation

WILLSTRONG® acp continuously create surprises.



>WILLSTRONG® /Fashionbond®

Ideal material for shopfront, identication, signage







Characteristics of FASHIONBOND®

- ✓ Low cost
- √ Variety colour choice and finishes
- ✓ Gloss ranges from 15%~96%
- ✓ Big sizes up to 1500x5800mm
- ✓ Easy fabrication, good formability
- ✓ Excellent smooth surface
- ✓ High peel off strength
- ✓ Green materials, 100% recyclable

Where to use FASHIONBOND®

Signage, Billboard, Furniture, Fascia Shopfronts, Display stands, Sign board, Company identification, Other commercial and industrial use



➤ WILLSTRONG® nano







250sq.meter = 20 trees' cleaning power working on pollution output of a car each day WILLSTRONG® Nano is mainly known for its Self-cleaning properties. Thanks to the special paint containing titanium dioxide(TiO2), which helps the panel clean itself and the air around it. As a result, it always deliver fresh appearance over time.

Typical Properties

- ✓ Self-cleaning
- ✓ Mildew resistant
- ✓ Eliminate smog by oxidizing NO_x Decomposing the organic



>WILLSTRONG® anti-bacterial

patented product





A real ideal material for hospital interior wall

WILLSTRONG®Anti-bacterial help to create cleaner and fresher life environments.

Typcial capabilty: Inhibit the activity and breeding of microorganism and eventually achieve sterilization purpose.

Other Properties:

- ✓ mildew resistant
- √ chemical resistant
- √ formaldehyde reducing
- ✓ odor eliminatin
- ✓ abrasion-resistant
- ✓ aesthetics

do something more for patient



>WILLSTRONG® dual





WILLSTRONG® dual acp is known for its changable color on its surface from different viewing angle.

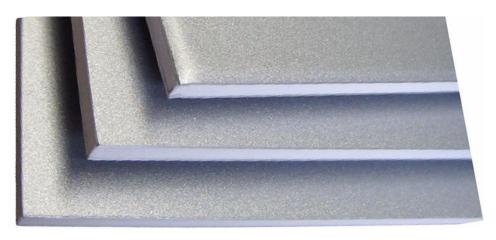
The enchanting colour effects with highlights and interesting colour gradients help to add new visual dimensions.

It is suitable for the decoration of company identification, exhibition stands, building facade, fascia, auto 4S shop, exhibition billboard etc..





>WILLSTRONG® fr



Offers both aesthetics and safety

Quality of WILLSTRONG® fr acp is verified by projects such as Charles de Gaulle Airport Terminal 2E, Russia Federation Tower, Sepinggan Internatinoal Airport and so on

A2 IS AVAILABLE

Fire Performance:

United Kindom: BS 476, Part 6 Index 0

BS 476, Part 7 Class 1

Overall Performance Class 0

France: CSTB Class M1 China: GB 8624 Class A &

Class B- s1, d0, t0

Russia: ГОСТ РИСО Approved

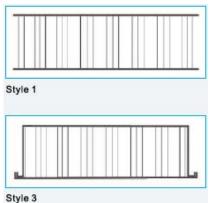
Patent No.ZL200720054008.1 & No.ZL200820202937.7

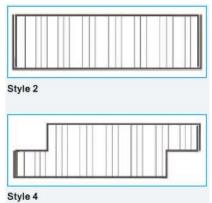




➤ WILLSTRONG® ahp







Advantages

- Large sizes with perfect flatness
- Light-weight and high strength
- Freedom design in aspects of panel shape, size, color and finish
- Varienty choice in cover sheets: aluminum, titanium, zinc, stainless steel, marble, acp...
- Integrated solutions of claddings system
- Broad uses: facades, column decoration, external cornice, ceiling, roof, etc.
- Easy installation and replacement of each panel.

. . .

Special shape solutions for boat

Whatever shape, pattern, we help to realize it.

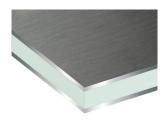


>WILLSTRONG[®] zcp

By joint together with **VMZINC**



Zinc Composite Panel (ZCP) by standard PE core



Fireproof Zinc Composite
Panel (ZCP fr)
by fire-retardant core in B1 or A2



Zinc Honeycomb Panel (ZHP) by aluminum honeycomb core







Typical Characteristics

- Natural surface colors/textures
- Light weight but high rigidity
- Excellent Flatness
- Eco-friendly Material
- Easy processing and installation
- Long life span and low maintenance



➤ WILLSTRONG® Popular Solid Colors







➤ WILLSTRONG® Popular Solid Colors

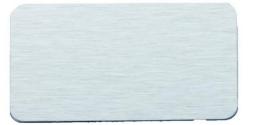


WILLSTRONG® Chamelon





WILLSTRONG® Brushed Finish











➤ WILLSTRONG® Special Surface



WILLSTRONG® stone pattern

WILLSTRONG® wood texture



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Peel off strength

Quality Criteria ≥130N·mm/mm

Test result 161N·mm/mm



Coating Thickness

Quality Criteria min.≥25µm

Test result average 30µm









Coating flexibility
Quality Criteria
≤2T

Test result



Coating adhesion
Quality Criteria
not lower than class1

Test result class1



Thermal shock resistance
Quality Criteria
Exchange conditions between 80°C and -50°C, no change after 20 cycles

Text result no change after 20 cycles



Impact resistance
Quality Criteria
50kg·cm
no cracking and peeling

Text result no cracking and peeling





For each project order, we cut out some samples and keep them for future

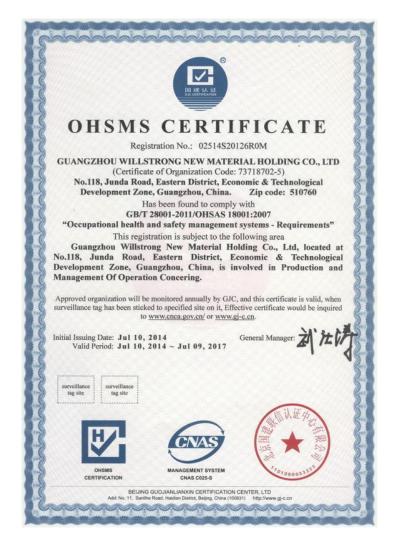
Product with quality problem for alert.



Besides exposure test in authorized testing ground of Sanya and Sinkiang, we have set up our own exposure test since years before.



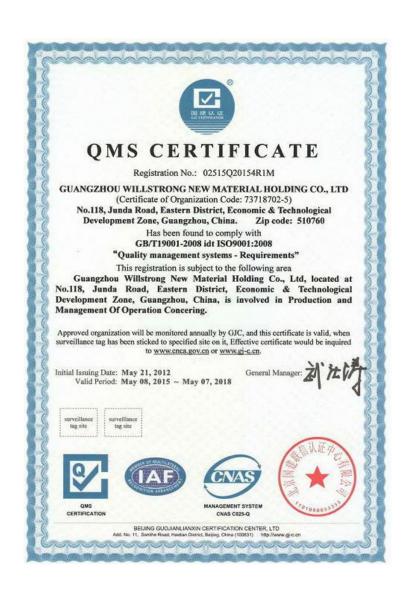




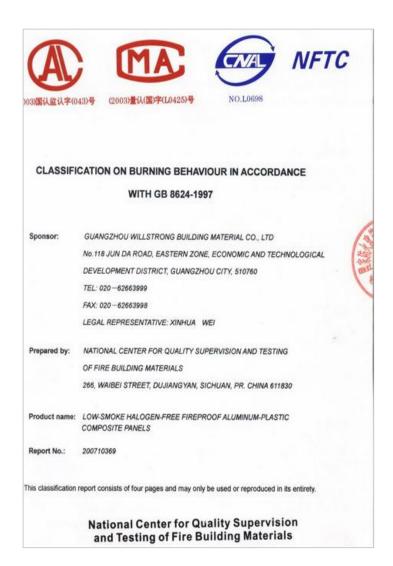
ISO14001:2004

OHSAS 18001:2007



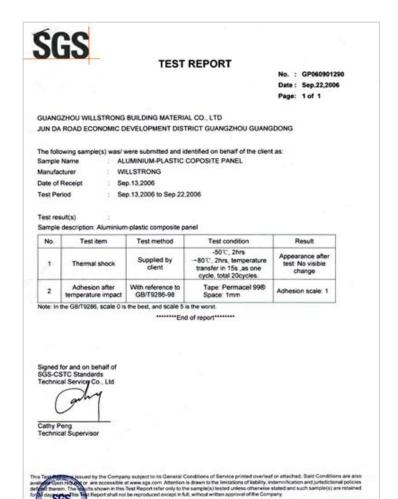


ISO 9001:2008



Fireproof performance as per GB 8624-1997





SGS(ASTM) Test Repot

| MXDONG(S0853AmSuppositionm ElebergiantsperCest Suppos Des 27800 | 1 (86-2002150011 | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000) | 1 (86-200215000)



CSTB-M1 Certificate





◆ CERTIFICAT CERTIFICATE OF CONFORMITY No. CLS2 15 10 93861 001 **CEPTU⊕UKAT ◆ CERTIFICADO** Guangzhou Willstrong New Material Certificate Holder: Holding Co., Ltd No. 118 Junda Road, Eastern District Economic and Technological Development 510760 Guangzhou PEOPLE'S REPUBLIC OF CHINA Roof Covering Materials Product: **Brand Name** Willstrong Model(s): Willstrong **Product Details:** Aluminium Composite Panel Bulk Density: 1863 kg/m³ Tested on the aluminium sheet with PE coating (Rating: Class 0) Standard(s): BS 476-6:1989/A1:2009 認識 BS 476-7:1997 ZERTIFIKAT ◆ CERTIFICATE ◆ Country of Origin: People's Republic of China Test Report(s): 7191121519-MEC15/1-OKH, 7191121519-MEC15/2-YWA Issued on: 2015-10-23 Valid until: 2018-10-22 Page 1 of 1 This Certificate is part of a full report and should be read in conjunction with it. This Certificate remains the property of ITV SUD PSB Pt Ltd and shall be returned upon request. The use of this Certificate is subjected to TUV SUD Group Testing and Certification Regulations, TUV SUD PSB Pt Ltd PSB).

Sheet. The manufacturer is soldly responsible for compliance of any product that has the same designation as the product type-tested. Persons relying on this Certificate should verify its validity by checking TUV SUD PSB's website at www.tur-sud-gbs.ag. TÜV SÜD PSB Pte Ltd • 1 Science Park Drive • Singapore 118221 TUV

SGS CE VERIFICATION

BS 476 Fireproof Certificate



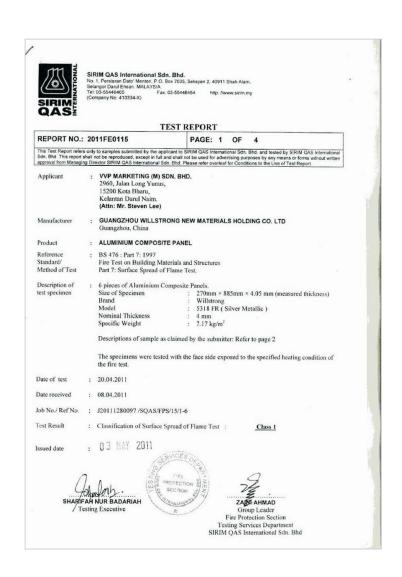






Russian Fireproof Certificate





BS 476 Fireproof Certificate



Tensile Strenth





Salt Spray (FOG) Test- ASTM



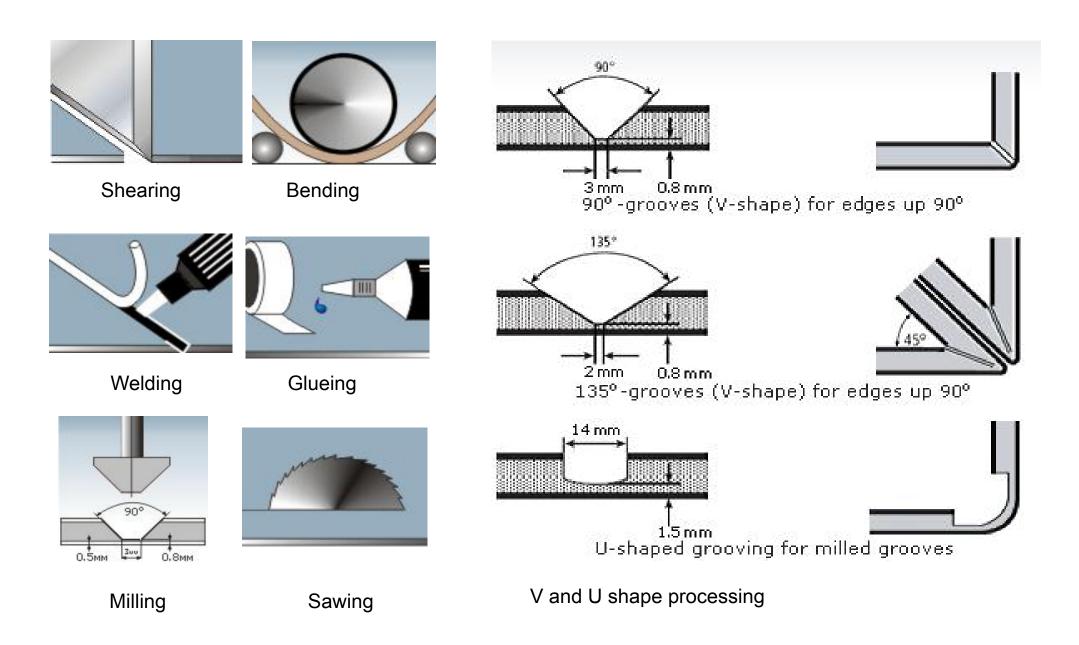
Coating Thickness



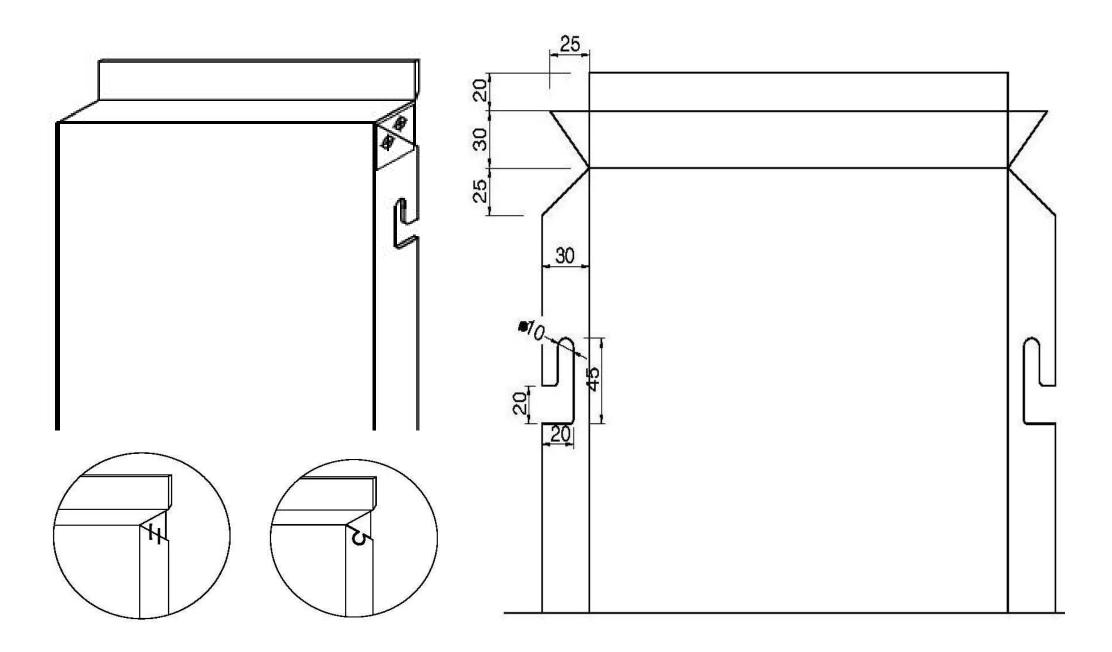
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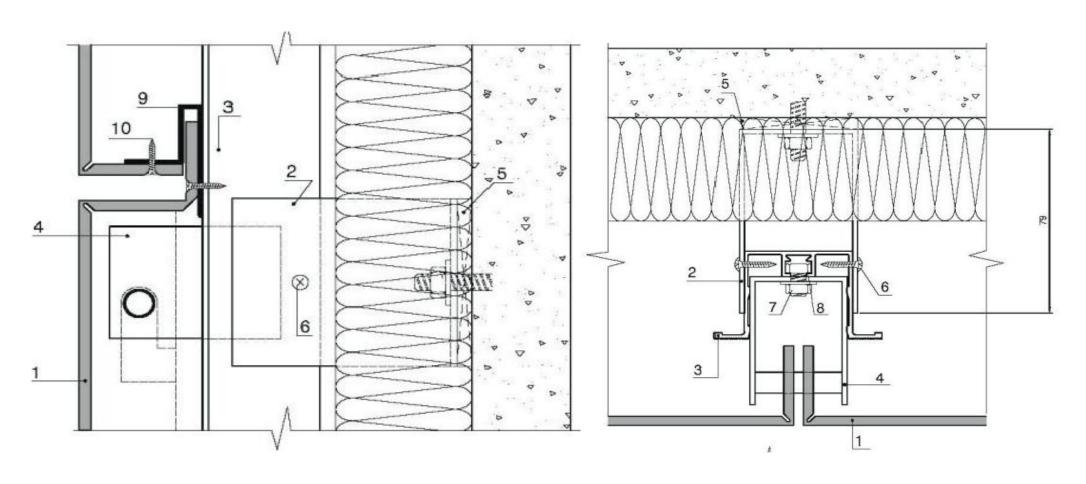


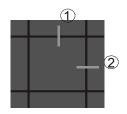












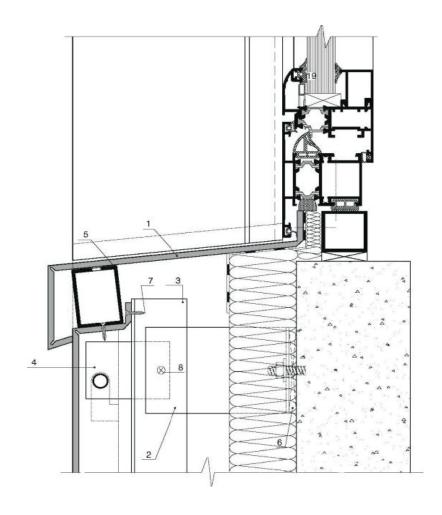
- 1.Composite Panel
- 2. Fixing Bracket
- 3. Aluminum Profile
- 4. Fastening Element

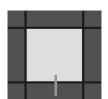
- 5.Plastic mat
- 6.Screws
- 7.Nut
- 8.Screw

9.Profile

10.Screw





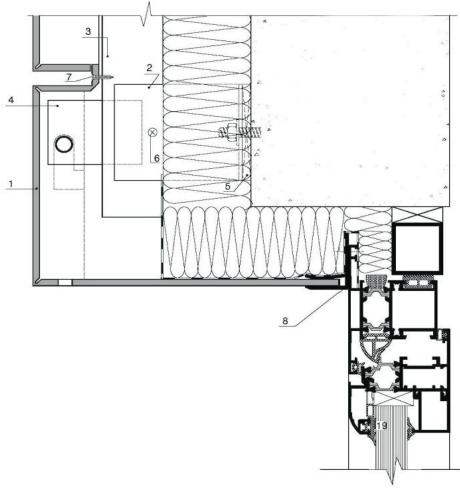


1.Composite Panel 5.Box

2.Fixing Bracket 6.Plastic mat

3. Aluminum Profile 7.Screw

4. Fastening Element 8. Screw





1.Composite Panel

2. Fixing Bracket

3. Aluminum Profile

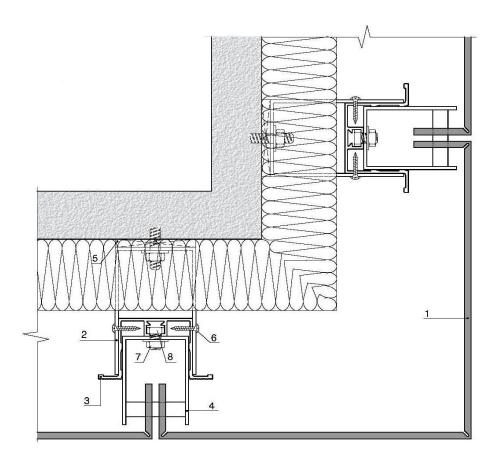
4.Fastening Element 8.Profile

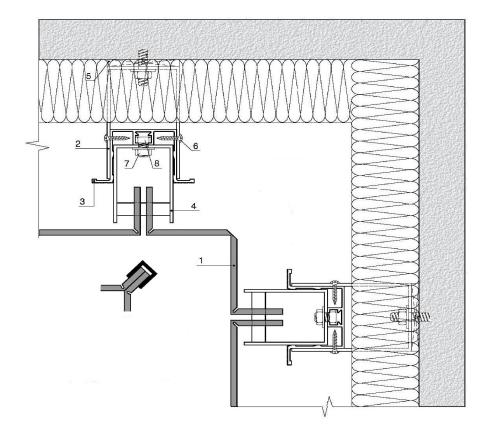
5.Plastic mat

6.Screws

7.Screws









1.Composite Panel

2.Fixing Bracket

3.Aluminum Profile

4.Fastening Element

5.Plastic mat

6.Screws

7.Nut

8.Screw



1.Composite Panel

2. Fixing Bracket

3. Aluminum Profile

4. Fastening Element

5.Plastic mat

6.Screws

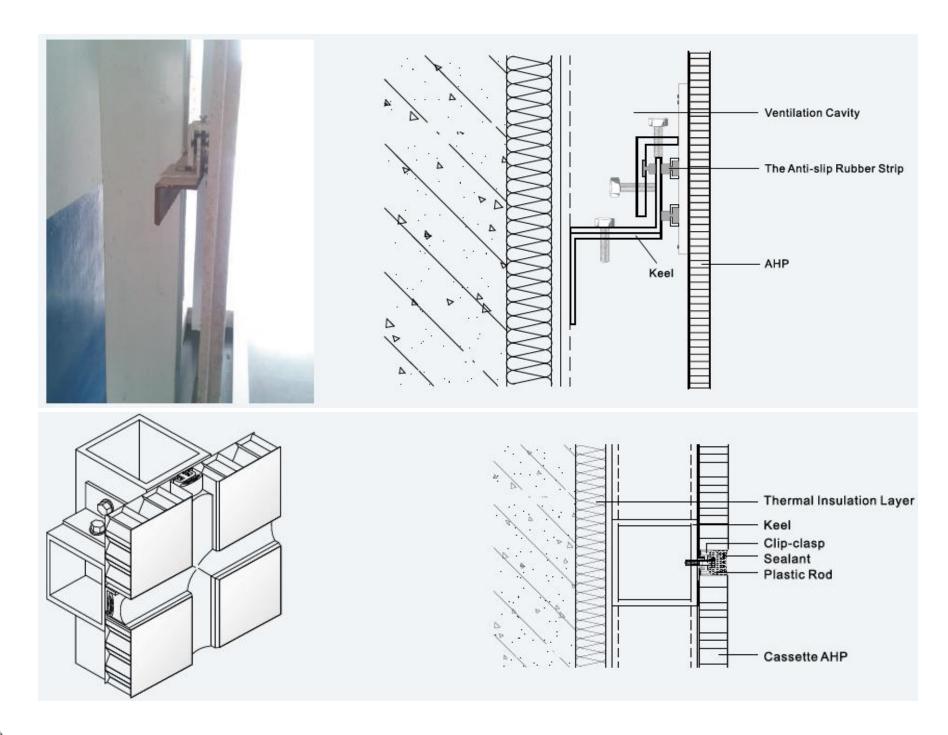
7.Nut

8.Screw

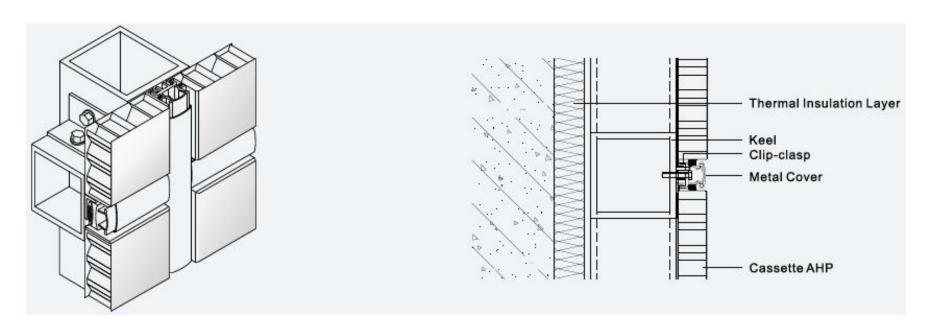
9.Profile

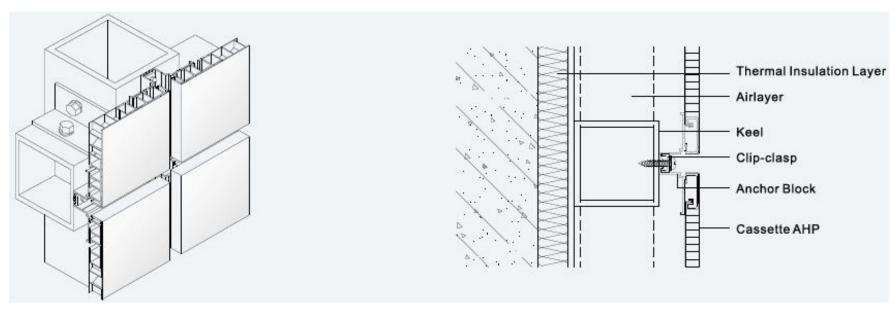




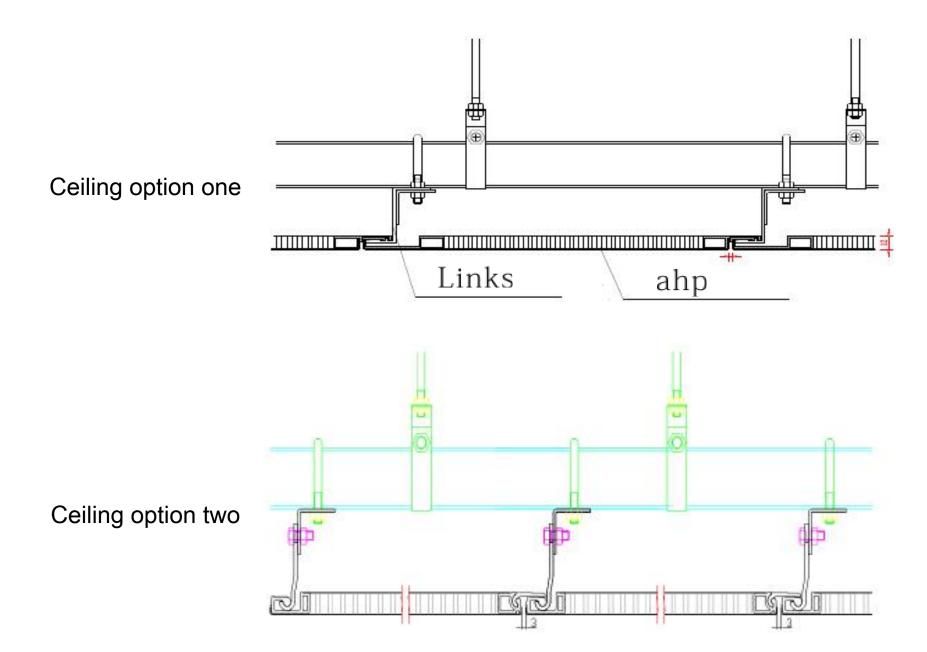














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global market touching







Sepinggan Int'l Airport

Location: **Indonesia**

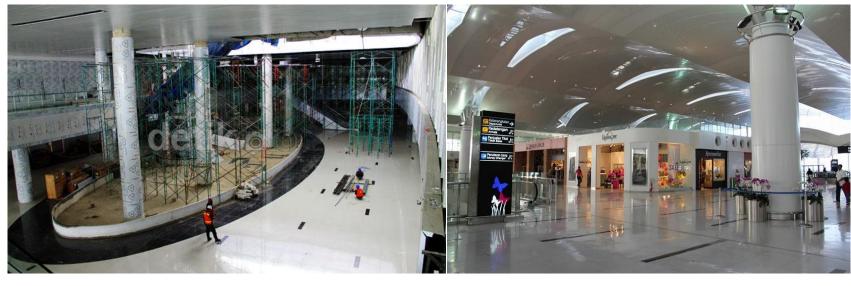
Completion:

2013

Quantity: 35,000 m²

Material:

WILLSTRONG® fr







Charles de Gaulle Int'l Airport Terminal 2E

Location: Paris, France

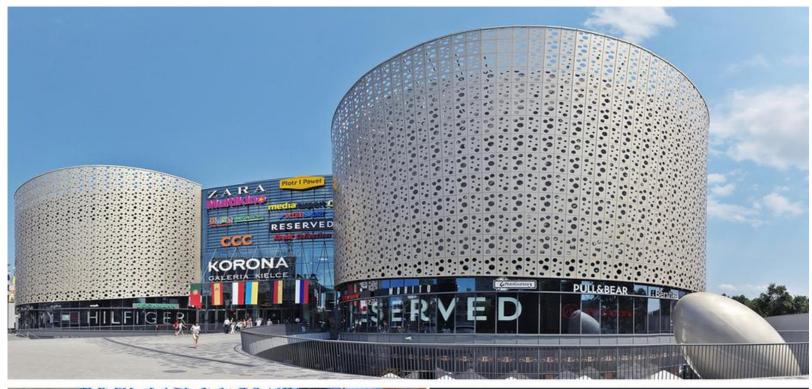
Completion:

2008

Quantity: 10,000m²

Material: WILLSTRONG® fr





Korona Kielce Mall

Location: **Poland**

Completion:

2012

Quantity: **12,000 m**²









The MUST Gymnasium

Location: **Philippines**

Completion:

2013

Quantity: **6,000 m**²









SIT Business & Knowledge Center

Location: **Mauritius**

Completion:

2014

Quantity: **6,500m**²







Hangzhou Tower (Louis Vuitton)

Location: Hangzhou, China

Completion:

2012

Quantity: **4,100 m**²

Material: WILLSTRONG® AHP





Dong Fang Baifu
-Headoffice

Location: **Hangzhou,China**

Completion:

2014

Quantity: **8,500 m**²

Material: WILLSTRONG® AHP





MASERATI showroom

Location: **Guangdong**

Completion:

2014

Quantity: 3,000m²









Location: Lebanon

Completion: 2010

> Quantity: 3,000m²

Material: **WILLSTRONG®** mirror acp





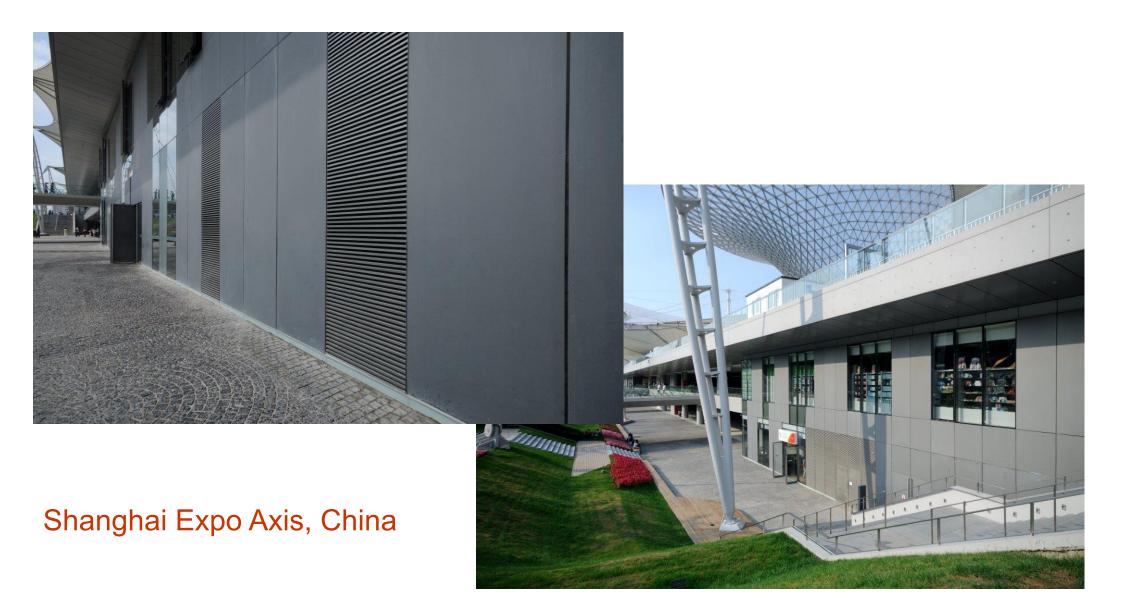
WILLSTRONG® ACP Chameleon——Israel





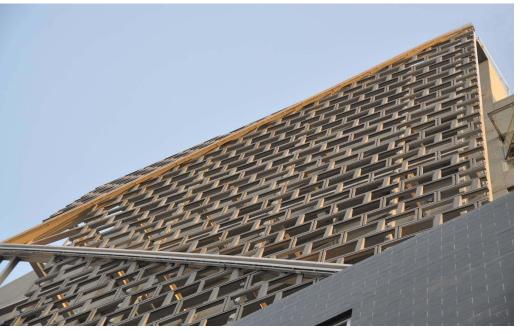
WILLSTRONG® AHP——Canada











The star of Banciao city, Taiwan







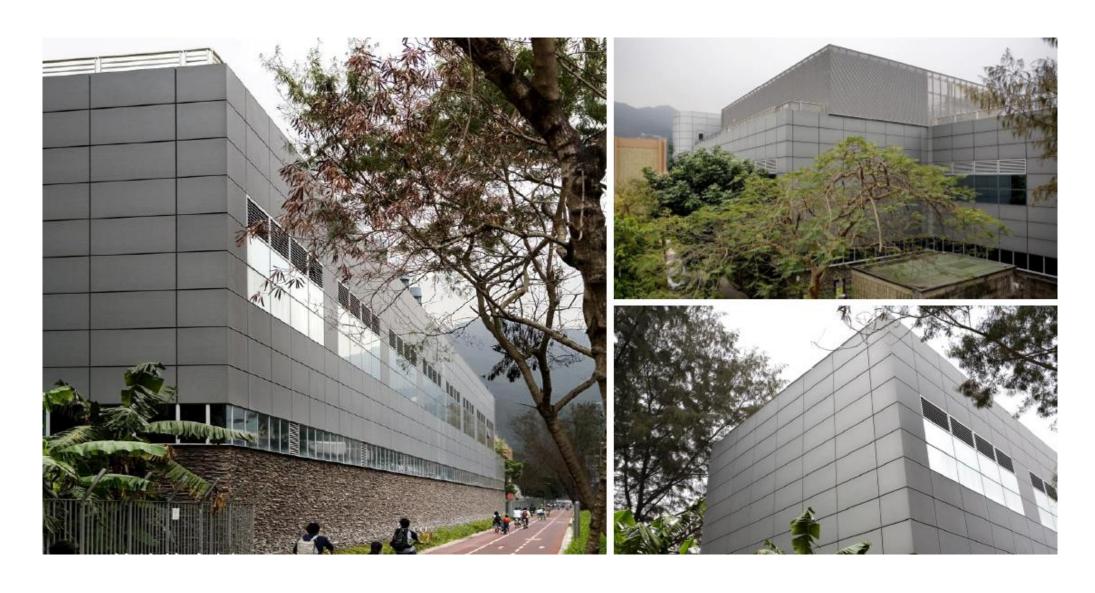
ZCP: Brown University, United States





ZCP: Railway Station, Taiwan





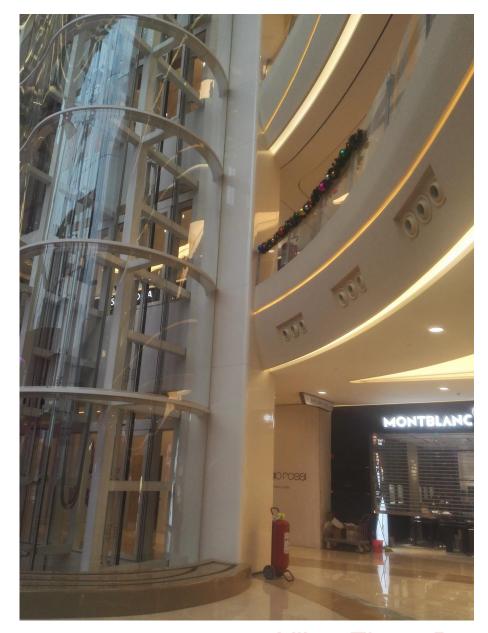
ZHP: Lab in ShaTin, Hong Kong





BaiYun Int'l Airport Security Block- WILLSTRONG® acp







Xi'an ZhongDa - WILLSTRONG® AHP





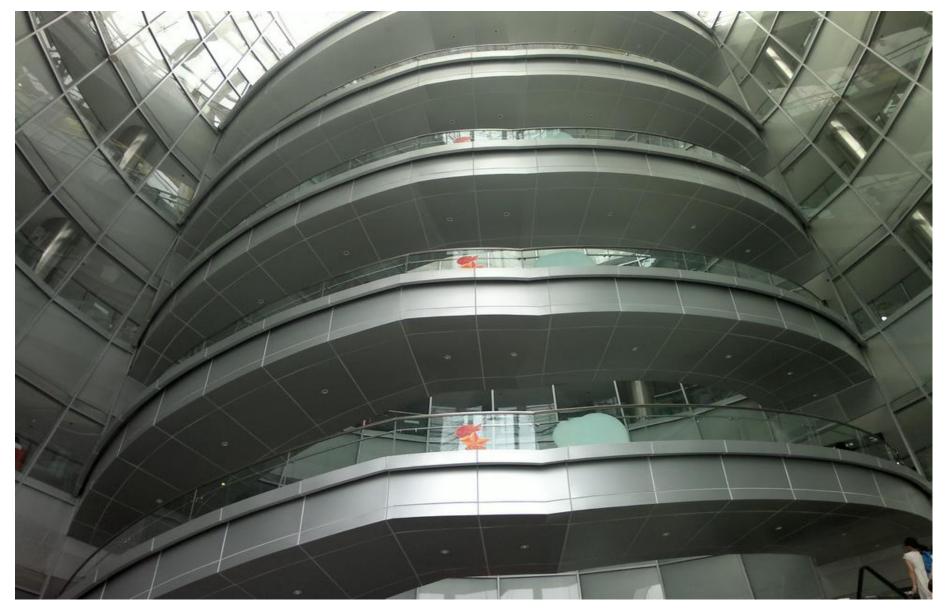
Metallurgy College Tianjin WILLSTRONG® Nano 11,000 m2





Tianjing Binjiang Golden and Shining Plaza





Children's Palace, Guangzhou

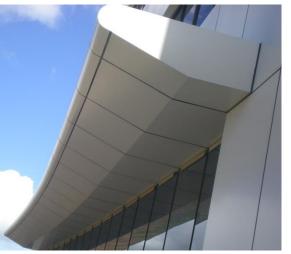




Mexico









1 CYCBERCITY Building, Mauritius





Metro Station, Iran







University Tower Green Street, Champaign IL. USA







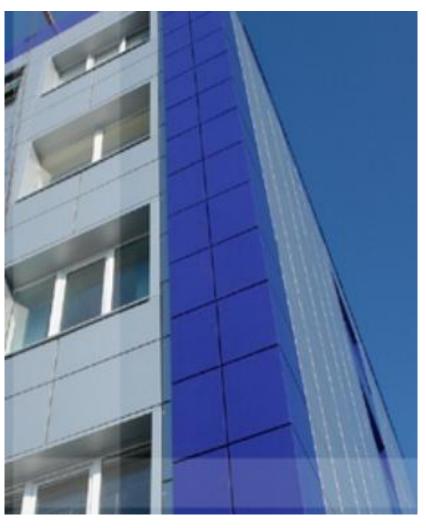


Russia









Russia





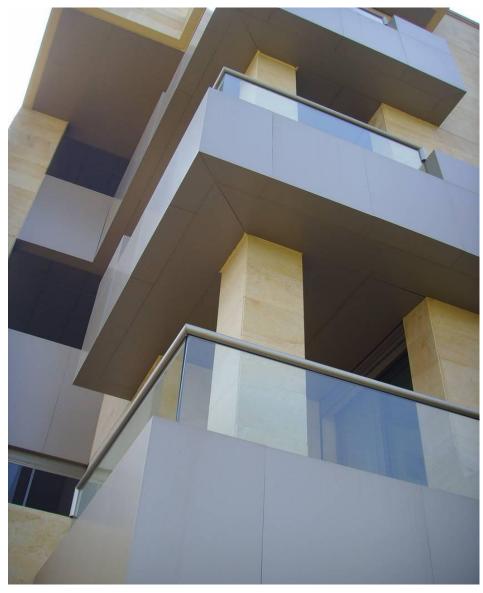




Librex Building— Zalka, Metn, Lebanon







Lebanon







EKE Investment Building Estonia





Office Building, USA





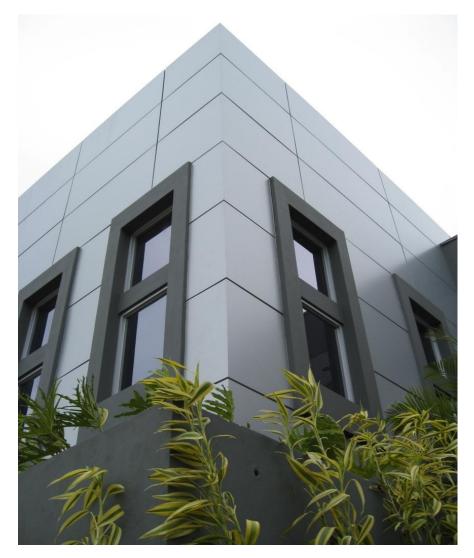
Tunisia





Oklahoma Comercial Building, USA







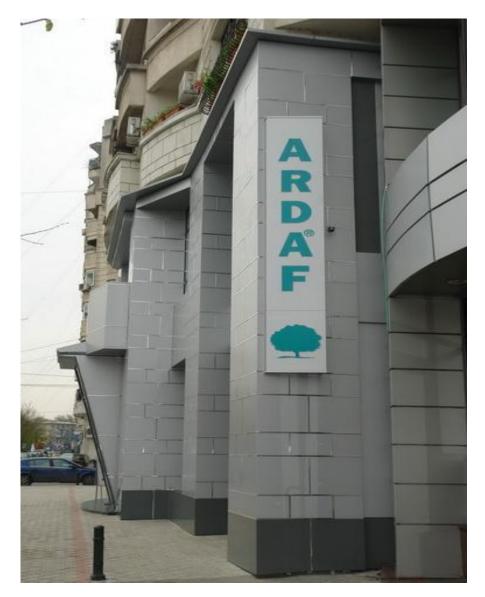
Office Building, Costa Rica





Poland









SC Ardaf Office, Romania









Artha Gading Mall, Indonesia







Danamon Bank, Indonesia







Iran





Commercial Building, India







Before Link Bridge-Sigapore

After







Before Sngie Kadut Avenue-Sigapore After





Chehab Marine—Dora Highway, Beirut, Lebanon





Ferrari Showroom—Dora Seaside road, Beirut, Lebanon









Hyundai Auto Sales, Russian





Bolivia





Romania





L.G Mobile Shop, Iran









Wood texture&Aluminum Ceiling









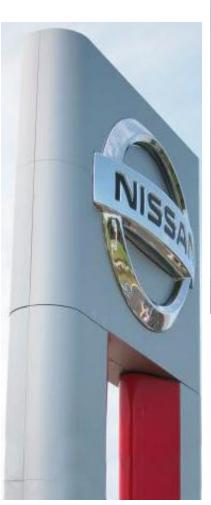


ACP for Shop Front













For Sign -Ukraine





Russia WILLSTRONG® anti-bacterial



02/12/2011 12:28





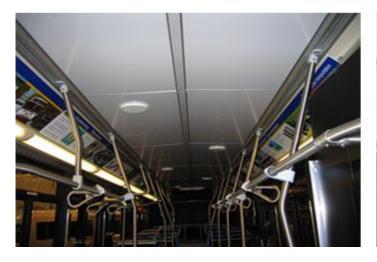




































Guangzhou Willstrong New Material Holding Co., Ltd.

NO.118, Junda Road, Eastern District, Economic and Technological Development Zone, Guangzhou, China

www.willstrong360.com

Tel: +86 (0)20-62663095 / +86 (0)20-62663999 Fax: +86 (0)20-62663998 Email:info@willstrong360.com

