WELLBOND

ALUMINUM COMPOSITE PANEL PORTFOLIO

WELLBOND

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COMPOSITE PANEL
PORTFOLIO

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ABOUT US

WELLBOND Manufacturing company is the 1st manufacture of aluminum composite panel in Egypt, located in Suez.

WELLBOND was found in 2008. During 10 years, **WELLBOND** has been well adopted by customers from both at Egypt and abroad.

WELLBOND have built up great sales networks and service organizations in dozens of countries and areas around the world, such as Saudi Arabia, Tanzania, Uganda, Lebanon, Kuwait, Sudan, Palestine, Kenya, Yemen, Libya, Ethiopia and Qatar and so on.

WELLBOND team can always offer the fastest delivery, best shipment and perfect after-sales service for all the customers. We obtain the certificate of 20 years guarantee for color deviation and sheets peeling off, **WELLBOND** conforming the international standards such as EOS 2013/7630, SASO 2008/2752 and holding ISO 9001/2015.

Uganda
Kenya
Tanzania
Sudan
Yemen
Libya
Oman
Saudi Arabia
Palestine
Kuwait
Lebanon
Qatar
Ethiopia

OUR MISSION

- We are committed to the inevitability of further development of quality standards for **WELLBOND** products to meet the requirements of our customers through effective management, competent staff and the latest manufacturing equipment is available to the global market.

OUR VISION

- We are working hard to be the best producer of the aluminum composite panel in the middle east.

WELLBOND ADVANTAGES

EASY SAWING AND ROUTING

WELLBOND ACP is relatively easy process that can be done with ordinary commercial metal and wood working equipment for cutting.

ECONOMIC

WELLBOND ACP convenient constructions, short working time no special maintenance, beautiful and cheap.

ENVIRONMENTALLY FRIENDLY

WELLBOND ACP is composed of recyclable and non-toxic materials.

SOUNDS AND HEAT INSULATION

WELLBOND ACP (PVDF coating) is a high performance for structure. It has much better sound and heat insulation compare to other materials. Resistance of ultra violet light when exposed to the heat of tropical sunshine.

COLOR VARIATIONS

WELLBOND ACP the wide range and available colors enable the architect and designers to create hundreds or more ideas for competitive designs.

ENDURANCE

WELLBOND ACP are perfectly weather ability and high strength performance.

HIGH TECHNOLOGY

WELLBOND ACP consisting of two sheets of aluminum permanently bonded to each side of core materials, wellbond can provide data sheet for every component of our composite panel.

SMOOTHNESS

WELLBOND ACP perfectly smooth surface because of quality coating and cover with protective film in order to prevent scratches and dust during process of application.

LIGHTNESS

Easy process for its lightweight performance and reducing building load which decrease the disaster during the earthquake.

OUR SERVICES

TECHNICAL SUPPORT

WELLBOND offers you a technical engineer who follows up fabrication, installation and delivering the project.

COLOR AVAILABILITY

WELLBOND offers you a range of different colors and its hue.

VARIABLE LENGTHS

WELLBOND offers you the length you need at any time.

POST PURCHASING SERVICE:

WELLBOND ask and do care about our clients after purchasing process.


WELLBOND
PRODUCTS

PRODUCTS WELLBOND PROVIDE

There are three types of products that WELLBOND can provide:

1 | According to core material

2 | According to coating material

3 | According to color/texture

1. ACCORDING TO CORE MATERIAL

Regular Aluminum Composite Panel (LDPE,Core)

LDPE is a thermoplastic made from petroleum. It is non-reactive at room temperatures, except by strong oxidizing agents. It can withstand temperatures of 800 continuously and 950 for a short time. Made in sheer and opaque variations, it is quite flexible and tough but unbreakable.

Fire Retardant Aluminum Composite Panel (B1)

KT-A/B-FRPE is a non-combustible mineral filled core, with no halogen, low smoke and fume. It is used for FRACP consisting of two aluminum cover sheets and a noncombustible mineral filled core.

FIRE RETARDANT ALUMINUM COMPOSITE PANEL (A2)

WELLBOND A2 Core panel sheets are a non-combustible, non-toxic and environmentally friendly product. The organic mineral filled core makes the A2 Core Panel sheets one of the highest fire retardant panel sheets currently in the industry and have been tested in accordance with various fire standards globally.

FIRE RETARDANT ALUMINUM COMPOSITE PANEL (A2, ALUMINUM CORE)

Two sheets of aluminum sandwiching, a corrugated Aluminum core formed in a continuous lamination process.
The core material shall be free of voids and/or air spaces and not contain foamed insulation material.

2. COATING TYPES

POLY VINYLIDENE DIFLUORIDE (PVDF) COATING

A Highly non-reactive thermoplastic fluoropolymer produced by the polymerrization of vinylidene difluoride.
(Guarantee 20 years, back to back with KYNAR/HYLAR).

POLYESTER COATING

Particularly suitable for closed-pore top coats, they make it possible to achieve a coating film with excellent chemical/physical resistance.
(Guarantee 10 years, back to back with KYNAR/HYLAR).

FEVE ALUMINUM COMPOSITE PANEL COATING

Feve aluminum composite panel is a combination of the advantages of PE coating and PVDF coating aluminum composite materials. For instance, its glossiness and color brightness is the as same as PE coating ACP and its weather resistance is comparable with the PVDF coating aluminum composite panel.
(Guarantee 17 years, back to back with KYNAR/HYLAR).

NANO POLY VINYLIDENE DIFLUORIDE (NANO-PVDF) COATING

Nano panel inherit all features of traditional PVDF panel, like antipollution, cauterization resistance, fastness and so on. Meanwhile, we apply nano high technology, which has superior function of self-cleaning, antipollution, acid resistance and alkali-resistance.
(Guarantee 20 years, back to back with KYNAR/HYLAR).

HIGH-DENSITY POLYETHYLENE (HDPE)

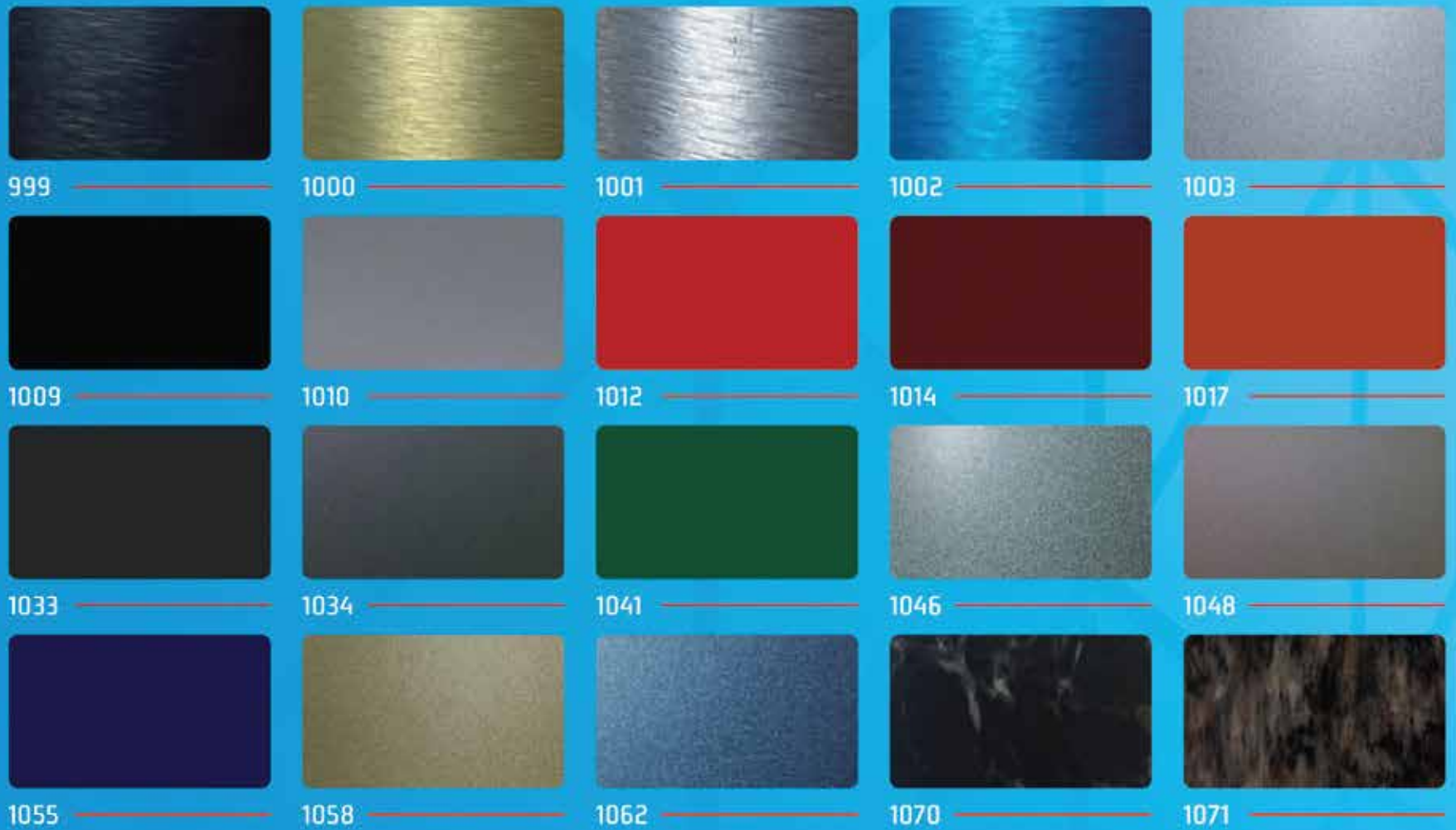
A hydrocarbon polymer prepared from ethylene/petroleum by a catalytic process. It is a kind of thermoplastic which is famous for its tensile strength. Its unique properties can stand high temperatures.

(Guarantee 15 years, back to back with KYNAR/HYLAR).

WELLBOND
COLOR CHART

WELLBOND COLOR CHART

COLOR CHART



COLOR CHART


1085

1089

1101

9010


9922


9956


9961


9908


9957


9924


96005


97001

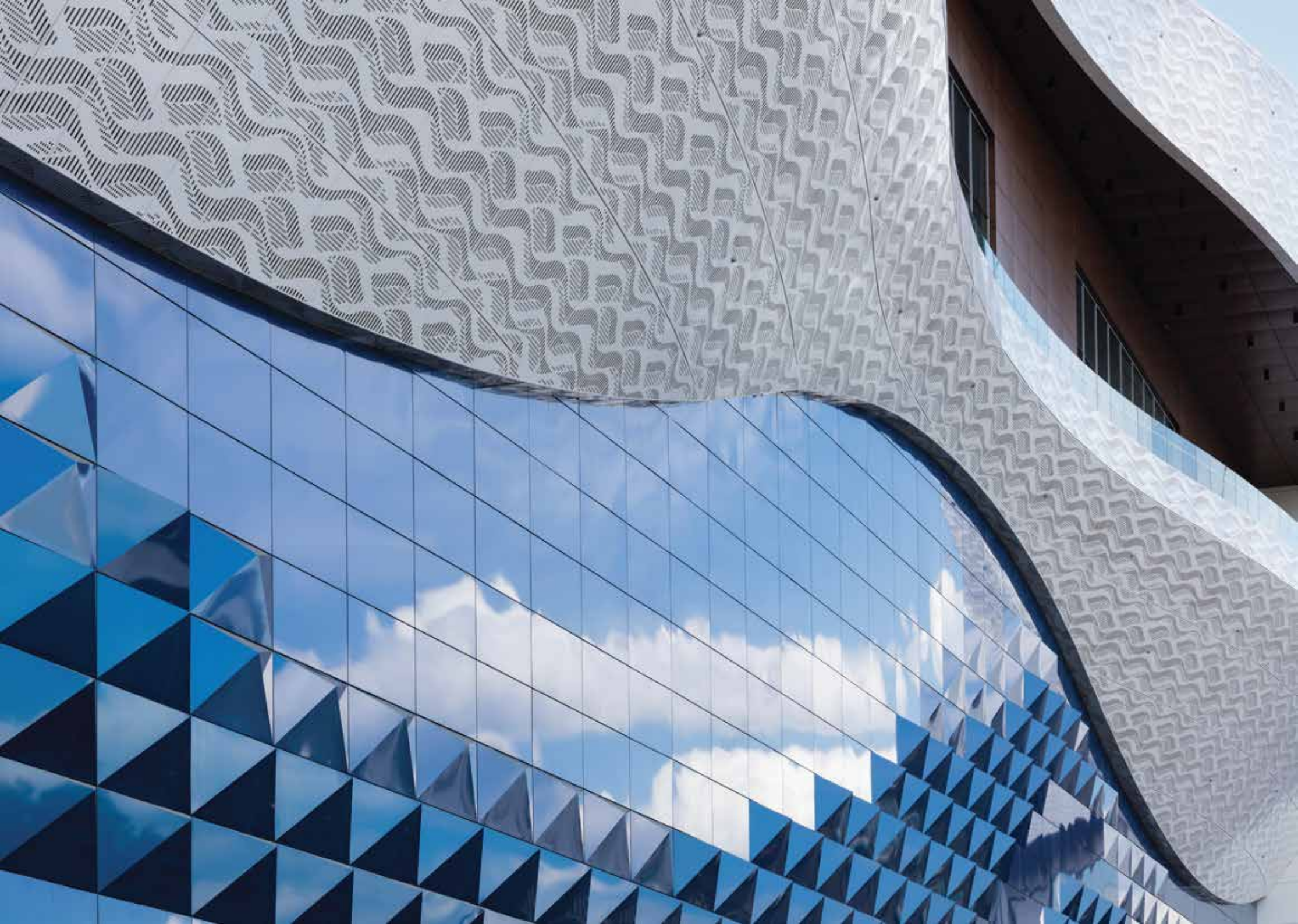

97005


1740


1850


1815


1084



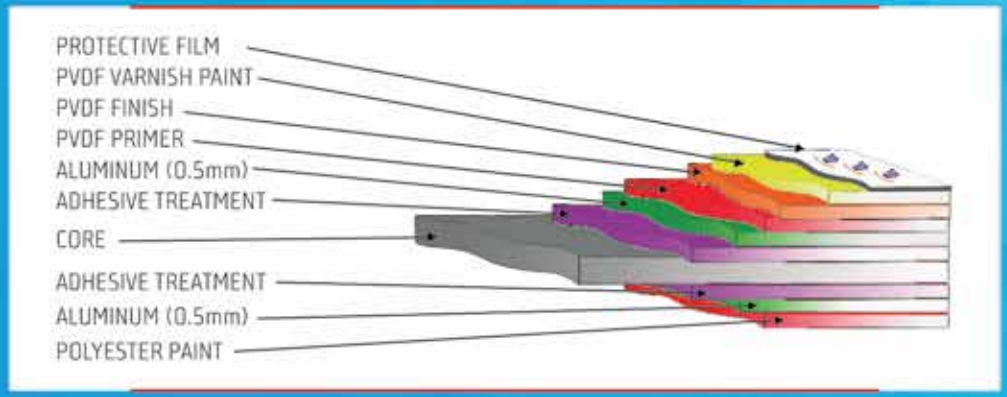
WELLBOND
TECHNICAL DATA

PRODUCT DESCRIPTION

WELLBOND Aluminum Composite Panel is (ACP) is a high-performance product consisting of two sheets of Aluminum bonded permanently to each side of an extruded core material made of low-density polyethylene core or fire retardant core. It is a simple concept resulting in an extraordinarily flat and highly firmable material with an excellent strength to weight ratio.

PRODUCT COMPOSITION

WELLBOND ACP is basically composed of the following materials:



1. PROTECTIVE FILM

The decorative surface is being protected by an 80-micron thick self-adhesive protective film to protect it from scratch and any possible damages during processing, storage and installation. It is composed by two colors, white with WELLBOND logo in outer side to reflect ultra-violation and black in inner side to prevent ultra-violation.

Test results for INTERNA S.A. PA: 103533

Surface :	Aluminium
Currently used products :	MK07037
Method of application :	for cladding
Processing :	bending, laser cutting
Colour :	Black&White
Thickness:	80 µm
Potential per year :	500.000m²

Number	Product	Article number	Adhesive type	Thickness [µm]	Coating weight [g/m²]	Colour	surface: Aluminium appl.by RT 4 x 5 kg surface after 14RT 180° Nlmm	appl.by RT 4 x 5 kg surface after 28RT 180° Nlmm	appl.by RT 4 x 5 kg surface after 7xRT 180° Nlmm	remarks
1	competitor film	MK07037	acrylic composite-film	77	7,1	b/w	1,87 appl. as delivery			no residues
2	PF562 RC/70"HM LIQUI	1158204	rubber	67	2,3+/-0,3	b/w	0,30	0,40	0,43	no residues
3	PF562 C	1008504	rubber	77	4,8+/-1,0	b/w	1,26	1,32	1,36	no residues
4	PF563 C	1010004	rubber	83	10,5+/-1,5	b/w	1,76	1,83	1,84	no residues
			PF-recommendation:				PF563 C (no test)			
					alternatively		PF562 C			

2. POLY VINYLIDENE DEFLOWERED (PVDF) COATING

A high non-reactive and pure fluoropolymer
coating used in applications requiring the highest purity, strength, resistance to solvents, acids, bases and heat, and low smoke generation during a fire event. PVDF is not susceptible to attack by UV light, so the resin does not break down on exposure to sunlight which gives a very high resistance to fading and chalking and a very good long-term maintenance of gloss and color.

3. POLYESTER COATING

A seven micrometer (7um) polyester-based coating in back aluminum sheet which serve as aid in protecting WELLBOND ACP from possible corrosion problems which may come from the corrosive substance from backside.

4. ALUMINUM SHEETS

two sheets of aluminum bonded to each side of a polyethylene core. They have excellent tensile strength, yield strength and elongation rate and were rated high resistance to corrosion.

Type of Alloy	3003 H18 / 3105 H18
Thickness	Up to 0.50 mm

5. BONDING FILM

ORBITA-FILM
KOMPETENZ IN FOLIE

PRODUCT INFORMATION

Product	**7127.H.000**	
Article Number		
Product Description	**Film:**	**Tie Layer- Film**
	Color:	**transparent**
	Range of thickness: (DIN 53370)	50 – 100 µm
Technical Data	**Peel resistance of Adhesives T-Peel Test** (ASTM D 1876-95)	≥ 3,5 kg/cm
	Tensile strength (DIN 53455)	
	Machine Direction (MD):	> 15 N/mm²
	Transverse Direction (TD):	> 17 N/mm²
	Strain at break (DIN 53455)	
	Machine Direction (MD):	> 400%
	Transverse Direction (TD):	> 500%
Application	**The film 7127.H.000 is recommended for production of aluminium-polyethylene laminate plates.**	
Application Conditions	**The recommended production temperature is over 120°C**	
Arrangement of Rolls	**Diameter of core alternatively 76 or 152 mm. Diameter of roll max. 1000mm.**	
Storage Conditions	**at room temperature, protected against UV.** **Storage time: max. 6 months after production date**	

Specification of delivery will be prepared and made available in course of continous deliveries.

CORE MATERIAL

LOW DENSITY POLYETHYLENE CORE (LDPE)

WELLBOND LDPE is a thermoplastic made from petroleum. It is non-reactive at room temperatures, except by strong oxidizing agents. It can withstand temperatures of 80OC continuously and 95OC for a short time. Made in sheer or opaque variations, it is quite flexible and tough yet unbreakable.

Physical Properties		Unit	Value[1]	ASTM Method
Melt index		G/10 min	0.75	D-1238
Density		G/cm³	0.922	D-1505
Vicat softening point		°C	98	D-1525
Film Properties*				
Tensile @ break	MD TD	MPa	26 23	D-882
Yield point	MD TD	MPa	12 12	D-882
Elongation @ break	MD TD	%	370 560	D-882
1% Secant modulus	MD TD	MPa	220 240	D-882
Dart drop impact face/crease		cN/µm	4	D-1709
Elmendorf tear	MD TD	cN/µm	4 7	D-1922
Haze		%	6.5	D-1003
Gloss 45° angle		-	65	D-2457

[1] The film properties have been measured on HP0722N (50 µ film, 2.5:1 blow-up ratio)

(1) The film properties have been measured on Hp0722n (50µ film, 2.5'1 blow-up ratio)

FIRE RETARDANT CORE (KT-A/B-FRPE)

is a non-combustible mineral filled core, with no halogen, low smoke and fume. It is used for FRACP consisting of two aluminum cover sheets and a noncombustible mineral filled core. The mineral used is brucite (natural magnesium Hydroxide) OR ATH: AL(OH)3. The compound allows melt temperatures of 130 - 280℃ at extrusion.

FIRE RETARDENT ALUMINUM CPOMPOSITE PANEL "A2 ORGANIC CORE"

is a non-combustible mineral and organic core, with no halogen, no smoke and fume. It is used for (ACP A2) consisting of two aluminum cover sheets and a noncombustible core consists of 95 % mineral filled and. mineral used is brucite (natural magnesium Hydroxide) OR ATH: AL(OH)3.

湖南科天新材料有限公司

KEOCT

HUNAN KEOCT MATERIALS CO., LTD

KT-B 1351型号产品主要成份说明

Material Safety Data Sheet

品名 Description: Halogen Free Flame Retardant PE	海关编码: HS Code 3901909000	分子式 structural formula —(—CH2-CH2—)n Mg(OH)2
品牌 Brand KEOCT	型号 TYPE KT-B 1351	级别 Grade 用该芯材制成的防火铝塑板可达到GB8624 B1级和EN13501-1 B-s1,d0级。 The ACP with this core materials can reach Grade B-s1,d0.

性能、外观 Performance and appearance:
为灰白色颗粒，无毒、易吸水、非腐蚀、无危险品。
Off-white granules, Non-toxicity, high hydroscopic property, Non-corrosive, Non-dangerous

包装 Package:
涂膜塑料编织袋，内有塑料膜袋，每袋净重 25 公斤。
Outside: textile kraft paper, inner plastic film bag, 25kg/bag.

运输储存注意事项 Transport and Stockage
防潮、防水。Less prevention, water proof

包装破损处理方法 The way to deal with the breakage and packing
包装破损时，需更换涂膜塑料编织袋，且需有塑料内膜袋。
When breakage happen, change the textile kraft paper, and inner plastic film bags are also needed.

说明 Instruction:
我司生产的防火铝塑板专用无卤阻燃聚乙烯料是以低密度聚乙烯及其共聚物为基材，添加无卤阻燃的水合金属氧化物 Mg（OH）2 及其它不含卤素的阻燃增效剂与抗氧剂 1010 等材料，经我司专利技术制备而成的环保型阻燃填充材料，达到欧盟环保标准，满足出口 ROSH 指令要求，产品密度 1.33-1.37 。
其主要成分的含量为：聚乙烯树脂：36%—45%；Mg（OH）2：52%—55%；抗氧剂等其它助剂：2%—5%。The product is made by firstly adding to its main ingredient polyethylene with environmentally benign flame retardant, and then adding incombustible hydrotcon MOX—Mg (OH)2 and AL (OH)3 and other incombustible synergistic agents and chemical inhibitors which are all halogen free. With proprietary technology, the incombustible clean materials which is produced by our company, reached European environmental standard and passed ROSH Test.
Principal Components: Polyethylene Resin: 36%—45%; Mg (OH) 2: 52%—55%; Antioxidant and other accessory ingredient: 2%—5%.

FIRE RETARDENT ALUMINUM COMPOSITAE PANEL "A2 ALUMNIUM CORE"

The WELLBOND is a newly developed composite panels which can be used in place of conventional PE, and FR core panels. This is also applicable in place of Honey comb and solid cladding sheets.

PRODUCT DIMENSION

1. Thickness : 3 mm, 4 mm, 6 mm 2. Width : 1240 mm **Note:** 1520 mm and 1570 mm are available upon request.

3. Length : 3200 mm **Provision:** or under customer's requirement between 2000- 6000 mm.

Note: WELLBOND standard in stock is 3200 x 1240 mm (L x W).

TOLERANCE

Size	Permissible Tolerance (EOS – 7630)
Length, mm	±3
Width, mm	±2
Thickness, mm	±0.2
Deviation of diagonal, mm	≤5
Out of straight at sides, mm/m	≤1
Warp, mm/m	≤5

SURFACE VISUAL QUALITY

The appearance of decorative surface shall not have any damages, irregularities and abnormalities. It shall be inspected in accordance with EOS -7630 (Aluminum Composite Panel for Outside and Inside Cladding) maximum allowable blemishes and defects in appearance criteria.

REGULAR ALUMINUM COMPOSITE PANEL "LDPE"

REGULAR ALUMINUM COMPOSITE PANEL (LDPE. Core)

Physical and Mechanical Properties

Panel Weight: 3 mm – 4.10 + 0.5 kg/m² 4 mm - 5.00 ± 0.5 kg/m² 5 mm - 5.90 ± 0.5 kg/m² 6 mm - 6.85 ± 0.5 kg/m²

Mechanical Properties

Test Item	Standard	WELLBOND Actual and Test Value
Bending Strength	≥ 100 Mpa	122 Mpa
Bend Elastic Module	≥ 20, 000 Mpa	30, 200 Mpa
Through Resistance, ASTM D732	≥ 9.0 kN	10.9 kN
Shear Strength, ASTM D732	≥ 28.0 Mpa	≥ 35.2 Mpa
180 Degree peeling Strength	≥ 7.0 N/mm	12.0 N/mm
Temperature Change Resistance	No change	No change
Coefficient of Thermal Expansion, ASTM D696	≤ 0.00004 C_1	≤ 0.0000246 C_1
Heat Deflection Temperature, ASTM D648	≥ 105 C	110 C

Coating Performance

Test Item	Standard Index	WELLBOND Actual and Test Value
Coating Thickness	≥25μm	≥28 μm
Gloss Deviation	gloss ≥ 70, max permissible deviation ≤ 5 gloss＜70, max permissible deviation ≤10	deviation = 1.0
Color Deviation, ASTM D2244	≤ 2.0 units	≤ 2.0 units
Pencil Hardness,	≥HB	3H
Coating Flexibility, ASTM D4145	≤2T	1T
Adhesion Grade,	in grid way: Grade 0 - in circle way: Grade 1	in grid way: Grade 0 - in circle way: Grade 1
Impact Resistance,	No peel-off, no crack at 50 kg.cm	No peel-off, no crack
Abrasion Resistance, ASTM D968	≥ 5 L/um	≥ 7.7 L/um
Hot Water Resistance	No color change, crack & peel-off at 98～100C in 120 min	No color change, no crack & no peel-off
Stain Resistance	≤ 15%	1.03%
Acid Resistance, ASTM D1308	No change	No change
Alkali Resistance, ASTM D1308	No change	No change
Oil Resistance, ASTM D1308	No change	No change
Solvent Resistance, ASTM D2248	No change	No change
Brush Resistance	≥10000 times of no change	No change
Salt Fog Resistance, ASTM B117	≥ Grade 2	Grade 1
Aging and Weather Resistance Color Deviation Gloss Retention Grad Other Aging Performance	≤ 3.0 ≥ Grade 2 Grade 0	1.9 Grade 1 Grade 0

FIRE RETARDENT ALUMINUM COMPOSITE PANEL "B1"

CORE PROPERTIES

KT-A/B-FRPE is a non-combustible mineral filled core, with no halogen, low smoke and fume. It is used for FRACP consisting of two aluminum cover sheets and a noncombustible mineral filled core.

KT-A/B-FRPE was especially designed for flat die extrusion at low compression Screws or for calendar processing. The mineral used is brucite (natural magnesium Hydroxide) OR ATH: AL(OH)3. The compound allows melt temperatures of 130-280℃ at extrusion.

KT-A/B-FRPE has been designed to comply with standard of fire behavior as follows:

EN 13501-1:2007 (EU)	B-s1, d0
BS 476, Part6/Part7 (UK)	I≤12, i1,2,3 ≤6 and Class 1
ASTM E84-12	A, Passed

CHEMICAL ANALYSIS

Type of mineral filled	MDH: Natural MG(OH)2 \ ATH: AL(OH)3
Mineral filled percentage	55-75%
PE	23.5-37.5%
Other polymeric additives	1.5-7.5%

PHYSICAL PROPERTIES

Density	g/cm3	ISO 1183	1.37-1.73
MFI (190℃; 21.6kg)	g/10 min.	ISO1133-2-2011	0.8-20

FIRE & SMOKE TEST PROPERTIES

Limited oxygen index	%	ISO 4589-2	27-50
Combustion heat	MJ/KG	ISO 1716-2010	10-20
PCS value of final ACP	MJ/KG	ISO 1716-2010	7-12
Halogen content	%	IEC 60754-1	0
Smoke density	-	IEC 601034	PASSED

FIRE RETARDENT ALUMINUM COMPOSITE PANEL PROPERTIES (B1)

SN.	PROPERTIES	STANDARD	UNIT/REF	3 mm	4 mm	6 mm
• PRINCIPAL PROPERTIES						
1	Core thickness	-	MM	4 MM		
2	Skin thickness	-	MM	0.5 MM		
3	Alloy	-	-	(1100, 3003 3105, 5005) H16		
4	Weight	-	±0.5 Kg/M²	7	8.30	10
5	Standard width	-	MM	1000, 1250, 1500, 1600		
• PRODUCT TOLERANCES						
6	Width	-	MM	±2		
7	Length	-	MM	±3		
8	Thickness	-	MM	±0.2		±0.3
9	Squareness	-	MM	Max 5		
10	Bow	-	%	±0.5		
• MECHANICAL PROPERTIES						
11	Tensile Strength	ASTM E8	MPA or N/MM2	60	45	28
12	0.2 % Proof stress	ASTM E8	MPA or N/MM2	50	44	25
13	Elongation	ASTM E8	%	6	5	2
14	Modulus of elasticity, E	ASTM C 393	GPA or KN/MM2	70	70	70
15	Rigidity, E^{xl} (E.J)	ASTM C 393	KN mm2/mm	70	135	345
• ACOUSTICAL PROPERTIES						
16	Sound Transmission Loss	ASTM E413	dB	25	26	
17	Sound Absorption Factor	ISO 354	-	0.05		

THERMAL PROPERTIES

18	Deflection Temperature	ASTM D648	°C	115	116	108
19	Thermal Resistance R	ASTM C518	M^2 K/W	0.03		0.035
20	Temperature Resistance	ASTM C518	°C	-50.....+80		
21	Linear Thermal Expansion	EN 1999 1-1	MM/M @ 100 °C	2.4		

CORE FIRE PERFORMANCES

22	Core	-	-	Excellent Performance Non-Combustible Mineral Filled Core		
23	Reaction to Fire	EN 13501-1	-	B1, S1, d0		
24	Surface Burning Characteristics	ASTM E84	-	Class A / Class 1		
25	Self-Ignition Temp	ASTM D 1929	-	Not Less Than 343°C		
26	Exterior Non-Load Bearing Wall Assembly	NFPA 285	-	-	passed Various Assembly Tests (Listings Reference: MH -AED - 002 & MH-AED -005 Rev 0)	-
27	Fire Rating	ASTM E 119	-	-	1Hrs 42Mins	-

COATING PERFORMANCES

28	Number of Coats	AAMA 2605 - 13	-	Standard 2 coat / 3 Coat / 4 Coat		
29	Type / Finish		-	Standard NANO PVDF / PVDF / FEVE / HDPE		
30	Gloss @ 60°c		%	20-40 / 20-80		
31	Adhesion (Dry Condition)		-	No Adhesion Loss		
32	Pencil Hardness		-	Min HB		

FIRE RETARDENT ALUMINUM COMPOSITE PANEL "A2"

FIRE RETARDENT ALUMINUM COMPOSITE PANEL (A2)

SN.	PROPERTIES	STANDARD	UNIT/REF	3 mm	4 mm	6 mm
PRINCIPAL PROPERTIES						
1	Thickness Sheet	-	MM	4 MM		
2	Skin thickness	-	MM	0.5 MM		
3	Alloy	-	-	(1100, 3003 3105, 5005) H16		
4	Weight	-	±0.5 Kg/M²	7	8.30	10
5	Standard width	-	MM	1000, 1250, 1500, 1600		
PRODUCT TOLERANCES						
6	Width	-	MM	±2		
7	Length	-	MM	±3		
8	Thickness	-	MM	±0.2		±0.3
9	Squareness	-	MM	Max 5		
10	Bow	-	%	±0.5		
MECHANICAL PROPERTIES						
11	Tensile Strength	ASTM E8	MPA or N/MM2	56	43.00	25
12	0.2 % Proof stress	ASTM E8	MPA or N/MM2	47	41.00	22
13	Elongation	ASTM E8	%	4.8	3.80	2
14	Modulus of elasticity, E	ASTM C 393	GPA or KN/MM2	70	70	70
15	Rigidity, E^{xl} (E.J)	ASTM C 393	KN mm2/mm	125	240	395
ACOUSTICAL PROPERTIES						
16	Sound Transmission Loss	ASTM E413	dB	26	27	
17	Sound Absorption Factor	ISO 354	-	0.05		

• THERMAL PROPERTIES

18	Deflection Temperature	ASTM D648	°C	110		
19	Thermal Resistance R	ASTM C518	M^2 K/W	0.031		
20	Temperature Resistance	ASTM C518	°C			
21	Linear Thermal Expansion	EN 1999 1-1	MM/M @ 100 °C	2.4		

• CORE FIRE PERFORMANCES

22	Core	-	-	Excellent Performance Non-Combustible Mineral Filled Core		
23	Reaction to Fire	EN 13501-1	-	A2, S1, d0		
24	Surface Burning Characteristics	ASTM E84	-	Class A / Class 1		
25	Self-Ignition Temp	ASTM D 1929	-	Not Less Than 343°C		
26	Exterior Non-Load Bearing Wall Assembly	NFPA 285	-	-	passed Various Assembly Tests (Listings Reference: MH -ATD - 001 & MH-AED -004 Rev 0)	-
27	Fire Rating	ASTM E 119	-	-	(Listings Reference: MH-AED-3 Hrs. Rev 6)	-

• COATING PERFORMANCES

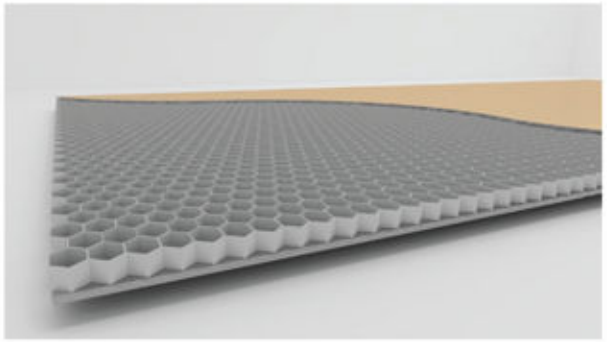
28	No of Coats	AAMA 2605-13	-	Standard 2 coat / 3 Coat / 4 Coat		
29	Type / Finish		-	Standard NANO PVDF / PVDF / FEVE / HDPE		
30	Gloss @ 60°c		%	20-40 / 20-80		
31	Adhesion (Dry Condition)		-	No Adhesion Loss		
32	Pencil Hardness		-	Min HB		

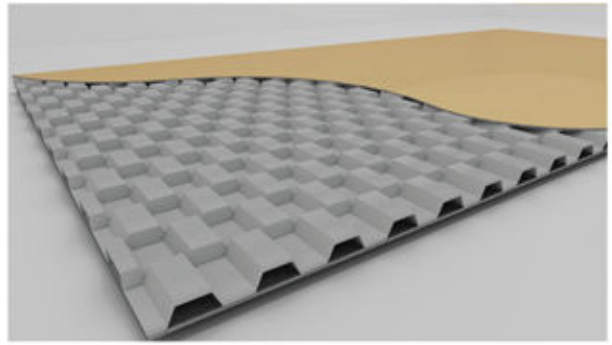
Test Item	Standard Index	WELLBOND Actual and Test Value
Coating Thickness	≥25μm	≥28 μm
	gloss ≥ 70, max permissible deviation ≤ 5 gloss＜70, max permissible deviation ≤10	
Color Deviation, ASTM D2244	< 2.0 units	< 2.0 units
Pencil Hardness,	≥HB	3H
Coating Flexibility, ASTM D4145	≤2T	1T
Adhesion Grade,	in grid way: Grade 0 - in circle way: Grade 1	in grid way: Grade 0 - in circle way: Grade 1
Impact Resistance,	No peel-off, no crack at 50 kg.cm	No peel-off, no crack
Abrasion Resistance, ASTM D968	≥ 5 L/um	≥ 7.7 L/um
Hot Water Resistance	No color change, crack & peel-off at 98～100C in 120 min	No color change, no crack & no peel-off
Stain Resistance	≤ 15%	1.03%
Acid Resistance, ASTM D1308	No change	No change
Alkali Resistance, ASTM D1308	No change	No change
Oil Resistance, ASTM D1308	No change	No change
Solvent Resistance, ASTM D2248	No change	No change
Brush Resistance	≥10000 times of no change	No change
Salt Fog Resistance, ASTM B117	≥ Grade 2	Grade 1
Aging and Weather Resistance Color Deviation Gloss Retention Grad Other Aging Performance	≤ 3.0 ≥ Grade 2 Grade 0	1.9 Grade 1 Grade 0

FIRE RETARDENT ALUMINUM COMPOSITE PANEL "A2 ALUMINUM CORE"

ALUMINUM CORE PANEL (GRADE A2)

Expand your creative horizons with the richness and vibrancy of Aluminum Core Panel. Our extensive selection of surface treatments and coil painting or natural metals enable you to create designs and effects that no other panel system can achieve. Whether you are looking for traditional solid color, satin finish, wood finish, stone finish, metallic color or any other customized color, Aluminum Core Panel, with our combination of unique coating and painting technology, can create the facade you want.





PRODUCT INTRODUCTION

WELLBOND Aluminum Core Panel introduces science and technology from Germany, shows excellent product properties such as extraordinary flatness, a large variety of colors and perfect form ability. It has been developed as a rigid and, at the same time, flexible material for architecture. Aluminum Core Panel is weather proof, and ensures easy and fast installation. As a light composite material consisting of two aluminum cover sheets (up to H19 aluminum) and an aluminum core, the versatile Aluminum Core Panel product is a material also preferred in areas other than architecture, such as furniture, kitchen, navigation and aviation industry, etc.

WELLBOND TECHNICAL DATA

1. NON-COMBUSTIBLE

The panel contains an improved fire safety core, and meets or exceeds the fire safety mandatory requirements for exterior and interior for all architectural buildings used in most countries.

2. LIGHT WEIGHT

The weight of Aluminum Core Panel is reduced by 30% compare to Aluminum composite panel (core with plastic) with equivalent rigidity.

3. FLEXIBLE & LONG LASTING

Aluminum Core Panel easy routed, drilled, punched, cut, bent, curved and precisely formed via these and other fabrication techniques. 20 years warranty makes it an excellent long term solution.

4. WEATHER RESISTANCE

Aluminum Core Panel uses nano tech PVDF painting, which has the unique advantage in the weather resistance, both in the hot sun or cold wind and snow, do not detract from the beautiful appearance, can reach 20 years not fade.

5. FLATNESS & HIGH STRENGTH

Aluminum Core Panel is excellent in surface smoothness and retains consistency of color. The continuous laminating process results in excellent flatness of the panel by eliminating small distortions remaining in the thin aluminum.

6. PEEL STRENGTH

Aluminum Core Panel adopts the new technology and reaches the most critical technical indicators peel strength, quality, flatness and weather resistance of the panel are improved into the best situation.

7. EASY PROCESS

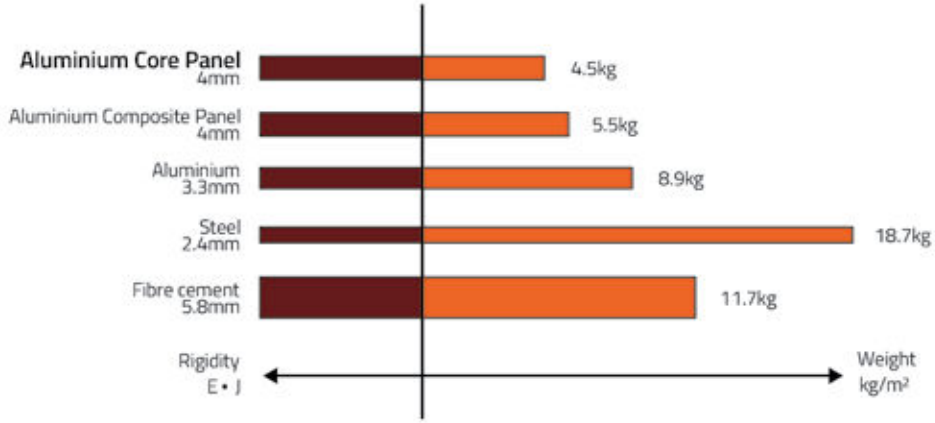
The processing of the Aluminum Core Panel is simple. Cutting, bending and fixing with rivet is just the same as traditional ACP. The product can be processed at the construction site to reduce the transportation cost.

THE CHARACTERISTICS OF ALUMINUM CORE PANEL: GREEN ENVIRONMENTAL PROTECTION, ZERO CARBON AND FIRE PROOF.

Aluminum Core Panel is a composite panel consisting of two aluminum cover sheets and an aluminum core. The superb properties of this material boost one's inspiration and offer architects a whole new range of solution-whether your project is a private home, public building, corporate headquarter offices, trading or industrial complex-or if your organization wants to create a new image-building corporate design-whether for petrol stations, car showrooms, banks or supermarkets.

ADVANTAGES

Comparison of thickness and weight of panels with equal rigidity.



FIRE RETARDANT ALUMINUM COMPOSITE PANEL (A2, ALUMINUM CORE)

APPLICATION

WELLBOND is offered in a wide variety of PVDF colors suitable for interior and exterior applications like wall cladding, roofing facades. WELLBOND also replaces the brick walls. Because of the good sound and thermal insulation, the WELLBOND replaces the gypsum board partition and brick walls. WELLBOND is also used as a clean room panel and in automotive industries.

COMPOSITION

Two sheets of aluminum sandwiching a corrugated aluminum core formed in a continuous lamination process. The core material shall be free of voids and/or air spaces and not contain foamed insulation material. Exterior / Surface panel is aluminum sheet coated with PVDF and interior / rear side or back side of panel will be available mill finish / polyester service coat / chromate.

ALUMINUM ALLOY SHEETS

Alloy: AA3000 Series (PVDF Painted material)

Core Material: AA3000 Series

Typical Composition of Aluminum Composite Panel (Diagrammatic Representation).

COATING FINISHES

POLY VINYLIDENE DIFLUORIDE (PVDF) COATING

A highly non-reactive thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. (Guarantee 20 years, back to back with KYNAR/HYLAR).

NANO POLY VINYLIDENE DIFLUORIDE (NANO-PVDF) COATING

Nanometer panel inherit all features of traditional PVDF panel, like antipollution, cauterization resistance, fastness and so on. Meanwhile, we apply nanometer high technology, which has superior function of self-cleaning, antipollution, acid resistance and alkali-resistance.(Guarantee 20 years, back to back with KYNAR/HYLAR).

COATING FINISHES

POLYESTER COATING

Particularly suitable for closed-pore top coats, they make it possible to achieve a coating film with excellent chemical/physical resistance. (Guarantee 10 Years, back to back with KYNAR/HYLAR)

HIGH-DENSITY POLYETHYLENE (HDPE):

A hydrocarbon polymer prepared from ethylene/petroleum by a catalytic process. It is a kind of thermoplastic which is famous for its tensile strength. Its unique properties can stand high temperatures. (Guarantee 15 Years, back to back with KYNAR/HYLAR).

FEVE ALUMINUM COMPOSITE PANEL COATING:

FEVE aluminum composite panel is a combination of the advantages of PE coating and PVDF coating aluminum composite materials. For instance, its glossy and color brightness is the same as PE coating ACP and its weather resistance is comparable with that of PVDF coating aluminum composite panel. (Guarantee 17 Years, back to back with KYNAR/HYLAR).

COLOR

Generally, we are manufacturing WELLBOND-AL with various options of color coating, basically we have Four different types of colors such as: Solid / Enamel Colors, Metallic Colors, Natural Finishes (Stone & Timber) and Sparkling Colors.

Product	Total Panel Thickness (mm)	Component Thickness (mm)				
		Surface Aluminum	Core Aluminum	Back Side Aluminum		
WELLBOND	3	0.3	2	0.3	Alloy AA 3105/3003 - H14	Non-Combustible Aluminum Core
	4	0.5	3	0.5		

PRODUCT DIMENSION

WELLBOND is available in various dimensions however our standard Product is 4mm x 1220mm x 2440mm.
The other available sizes are as follows:

Dimension	Unit	Standard	Size Available
Width	mm	1220	1000 - 1500
Length	mm	2440	< 6000 mm
Thickness	mm	4	3,4

FIRE TESTS

Results of Reaction to Fire Tests

Country	Test Standard	WELLBOND	Result & Classification
U.K	BS476 Part 6 BS476 Part 7 BS476 Part 4	3mm , 4mm	Class 0 Class 1 Non Combustible
Germany	DIN4102 Part 1	3mm , 4mm	Class A2
European	EN 13501-1	3mm , 4mm	Class A2, S2, D0


SGS
TEST REPORT

SGS

TEST REPORT

No. : GZIN1705022796PS
Date : Jun 26, 2017
Page: 1 of 22

CUSTOMER NAME: WELLBOND ALUMINIUM COMPOSITE PANEL-EGYPT
ADDRESS: 22 AHMED TAYSEER ST. HELIOPOLIS/CAIRO,EGYPT

Sample Name : ACP,FR
Product Specification : ACP 4MM (0.5+3+0.5 MM)

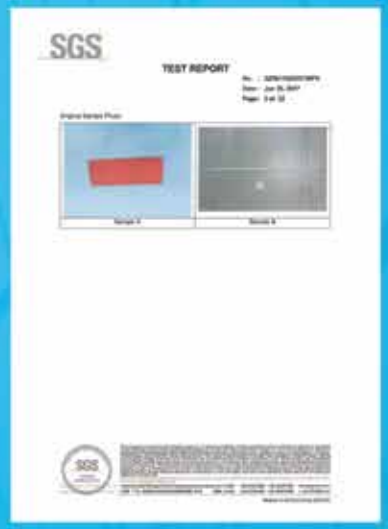
Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

SGS Ref. No. : SDHL1705010416FB, GZIN1705023466MR
Date of Receipt : May 23, 2017
Testing Start Date : May 23, 2017
Testing End Date : Jun 16, 2017
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co., Ltd. GZ Branch Testing Center

Elesin Fan
Authorized signatory


SGS
TEST REPORT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TEST REPORT


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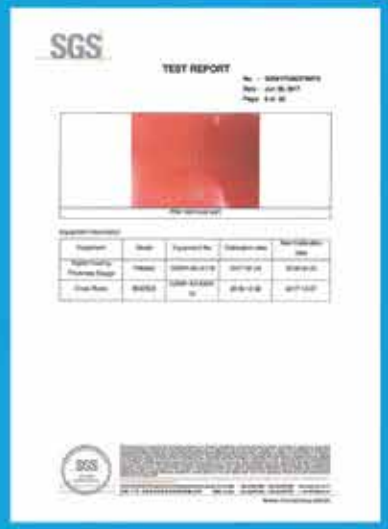
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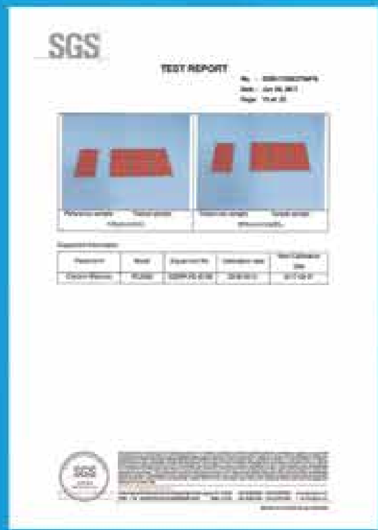
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TEST REPORT


B1 FIRE
BEHAVIOR TEST

SGS

TEST REPORT

No. : GZIN1911060283SC
Date : Nov 25, 2019
Page: 1 of 7

CUSTOMER NAME: WELLBOND ALUMINUM COMPOSITE PANEL-EGYPT
ADDRESS: 22 AHMED TAYSEER STREET HELIOPOLIS CAIRO EGYPT

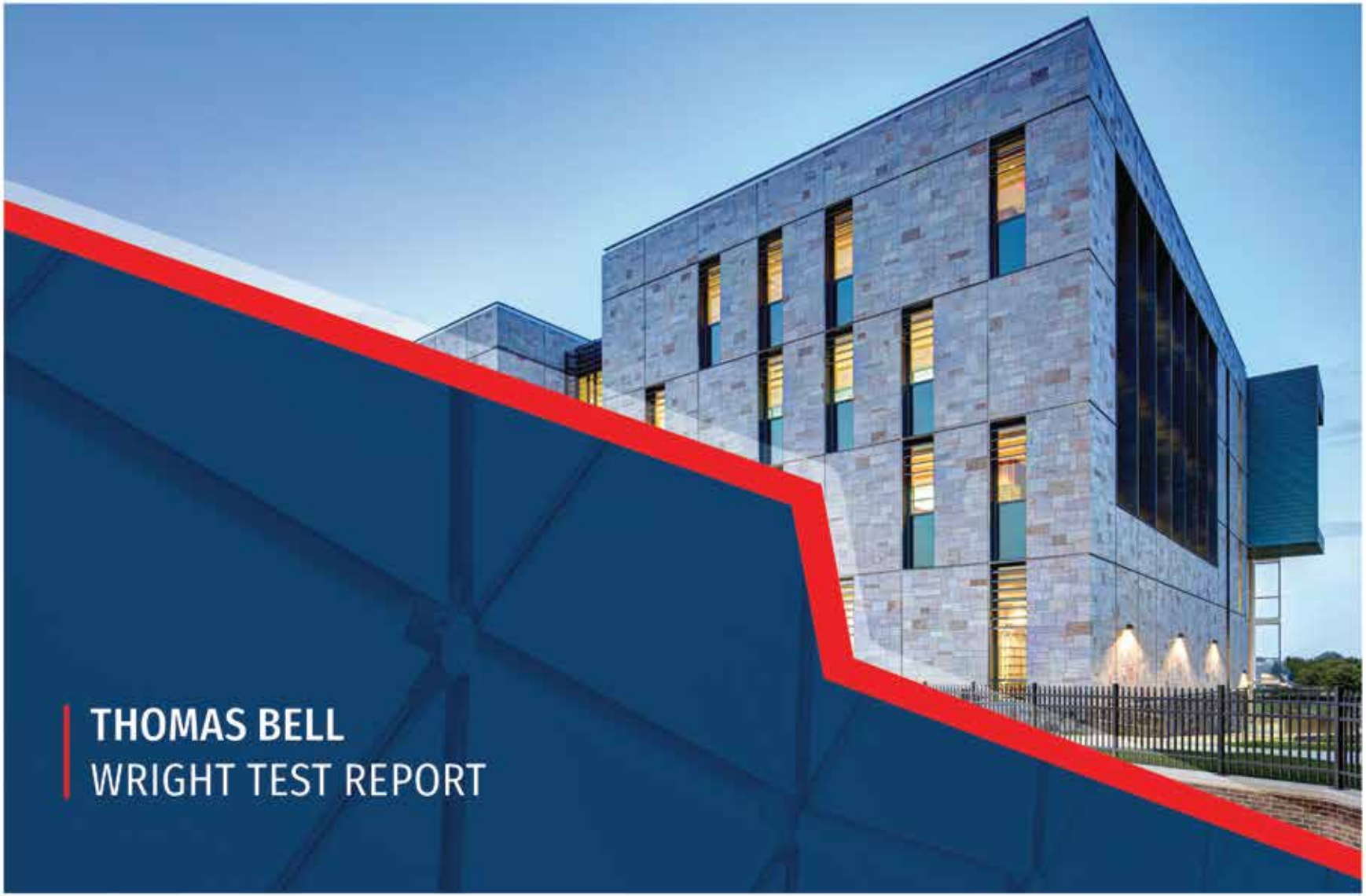
Sample Name : GRADE B FIRE-RESISTANCE ALUMINUM COMPOSITE PANEL
Other Information : PROJECT NAME: CAIRO METRO LINE 3- PHASE 4B

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Date of Receipt : Nov 08, 2019
Testing Start Date : Nov 08, 2019
Testing End Date : Nov 25, 2019
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co., Ltd. GZ Branch Testing Center

Quincey lee
Authorized signatory


THOMAS BELL
WRIGHT TEST REPORT

TEST REPORT

REACTION TO FIRE TEST

TEST SPONSOR:

Wellbond Aluminium Composite Panel Co.
Ataqah Suez No. 6, Block 11
Egypt
T: +20 62 323 0575, F: +20 62 323 0574

TESTED MATERIAL/ASSEMBLY:

Aluminium Composite Panel (ACP)

TEST STANDARD:

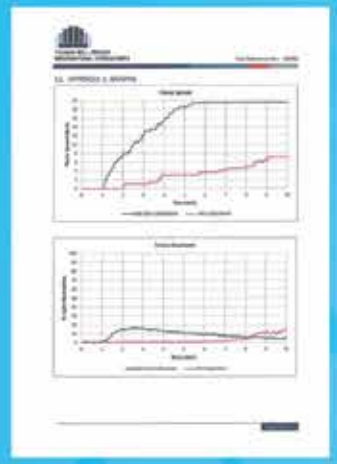
ASTM E84-15b: Standard Test Method for Surface Burning Characteristics of Building Materials

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 19-Jul-16
Issue Date: 28-Jul-16
Test Reference No.: CJE066

PO BOX 26385, DUBAI UAE T +971 (0)4 333 2032 admin@bell-wright.com www.bell-wright.com
DUBAI ABU DHABI DOHA

THOMAS BELL-WRIGHT TEST REPORT



WELLBOND
MATERIAL CERTIFICATES


20 years
Certificate
Of GUARANTEE
WELLBOND
WELLBOND warrants that all products are conformed to the international standards.
WELLBOND warrants that our products will not peel, check, color change or crack for a period of 20 years from the date of Shipment.
Eng .Mohamed Sherif Saleh
SIGNATURE
Beckers
SGS
PPG
EGYPT
intertek
EOS

QUALITY CERTIFICATE

SGS

PROUDLY MADE IN EGYPT SEAL OF QUALITY

intertek
Total Quality. Assured.

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

EOS
الهيئة المصرية العامة للمواصفات والجودة
Egyptian Organization for Standardization and Quality

ASTM
INTERNATIONAL
Standards Worldwide

WELLBOND
TECHNICAL SUPPORT

RELATION OF BENDING DEFLECTION AND LATE DIMENTION (WITH REINFORCING RIB) 1000MM WIDTH OF ALUMINUM PLASTIC COMPOSITE PANEL

Wind loading (Pa)	Allowable Plate Length (mm)	Center Deflection (mm)	Spacing of rivet (mm)
500	8000	26	500
600	8000	32	500
700	8000	37	500
800	3700	37	500
900	3300	35	500
1000	3000	34	500
1100	2700	33	500
1200	2400	31	500
1400	2100	30	500
1600	1700	25	500
1800	1400	22	500
2000	1200	20	500
2200	1100	18	500
2400	1000	17	500
2600	900	16	500
2800	800	15	400
3000	750	15	400

RELATION OF BENDING DEFLECTION AND LATE DIMENTION (WITH REINFORCING RIB) 1250MM WIDTH OF ALUMINUM PLASTIC COMPOSITE PANEL

Wind loading (Pa)	Allowable Plate Length (mm)	Center Deflection (mm)	Spacing of rivet (mm)
500	3800	35	500
600	3300	38	500
700	3000	38	500
800	2800	37	500
900	2500	36	500
1000	2300	35	500
1100	2000	31	500

Wind loading (Pa)	Allowable Plate Length (mm)	Center Deflection (mm)	Spacing of rivet (mm)
1600	1300	23	500
1800	1100	21	500
2000	1000	20	500
2200	900	19	500
2400	800	18	400
2600	750	18	400
2800	700	17	400
3000	650	16	400

RELATION OF BENDING DEFLECTION AND LATE DIMENTION (WITH REINFORCING RIB) 1500MM WIDTH OF ALUMINUM PLASTIC COMPOSITE PANEL

Wind loading (Pa)	Allowable Plate Length (mm)	Center Deflection (mm)	Spacing of rivet (mm)
500	3400	43	500
600	3000	42	500
700	2700	41	500
800	2300	36	500
900	2000	32	500
1000	1800	30	500
1100	1600	28	500
1200	1500	27	500
1400	1250	25	500
1600	1100	24	500
1800	1000	23	500
2000	900	22	400
2200	800	21	400
2400	750	20	300
2600	700	19	300
2800	350	18	300
3000	600	15	300

MACHINES USED IN FABRIC ACP

Aluminum Panel Automatic Cutting Machine

Aluminum Panel Cutting & Grooving Machine

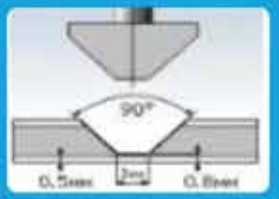
Aluminum Panel Revolving Machine

Handy Circular Saw Machine

PROCESSING REFERENCE

Shearing

Bending



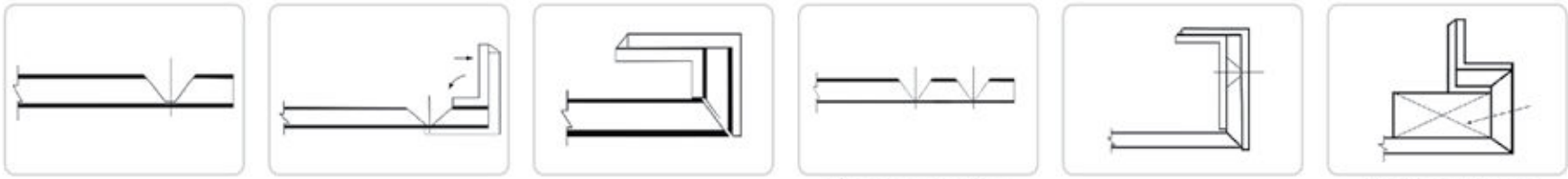
Grooving

Welding

Gluing

Sawing

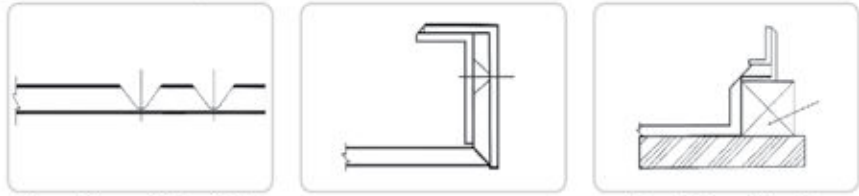
Curve ruler (Curve ruler with handgrip. soft protective mattress shall be arranged on the contact face with aluminum - plastic composite panel to prevent scuffing aluminum plastic panel while acting bending force).



Representative grooving modes

Cushion Block

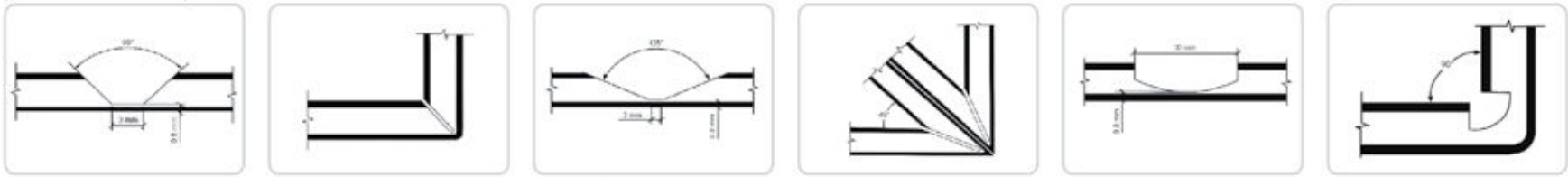
Secondly bending with right-angle convex shape



Bending with right angle suck

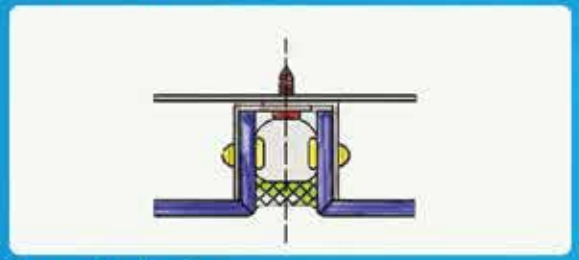
Cushion Block

In the hemming construction of aluminum-plastic composite panel, the hemmed position shall be grooved in accordance with the hemming requirement, the grooving mode like V-groove and U-groove are commonly used (Figure E.0.1). The special groover for aluminum-plastic composite panel shall be adopted, to ensure the grooving depth not damaging the opposite aluminum product, and reserving plastic layer (0.30mm in thickness). Reinforcement measure may be adopted on the grooving position as required.

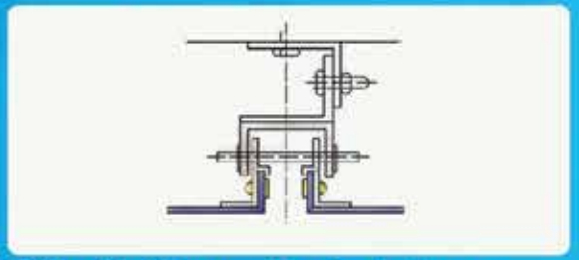


Representative grooving modes

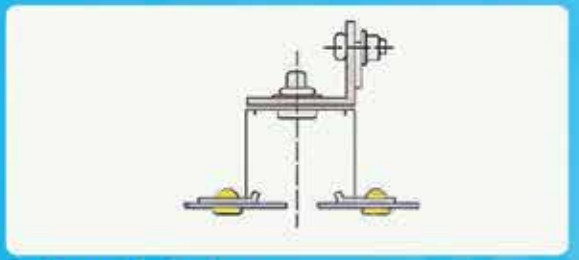
INSTALLATION PROCESS



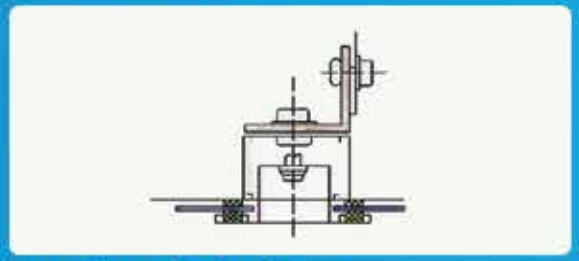
Screw Fastening



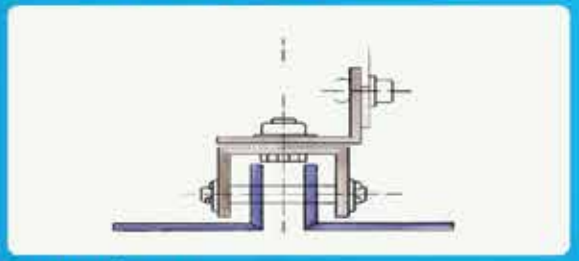
Fitting Part Suspending Fastening



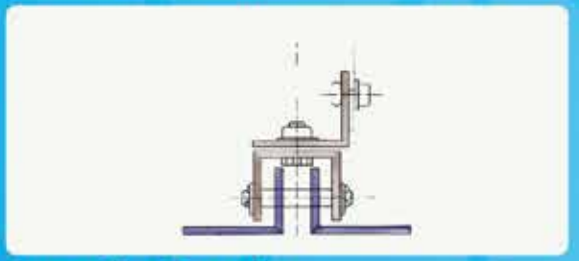
Fastener Fastening



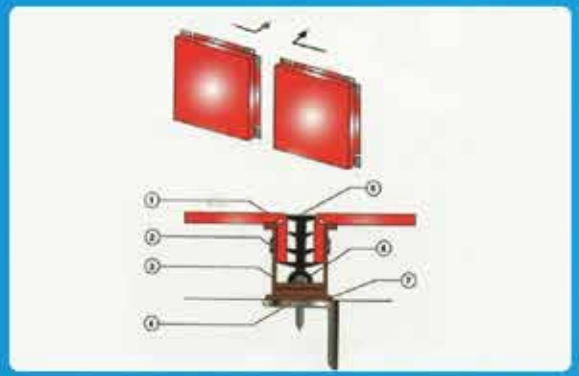
Layer Screw Fastening

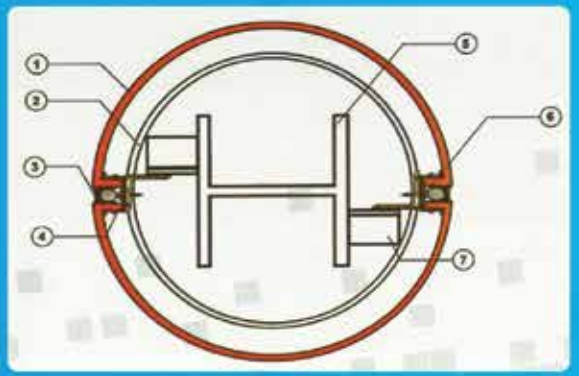


Suspending



Suspending Fastening

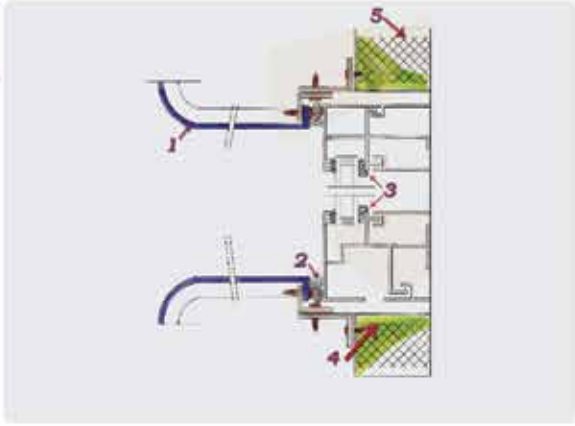




1-WELLBOND Panel
2- Aluminum River
3- Aluminum Angle
4- Angle Bar
5- Gasket
6- Screw
7- Spacer

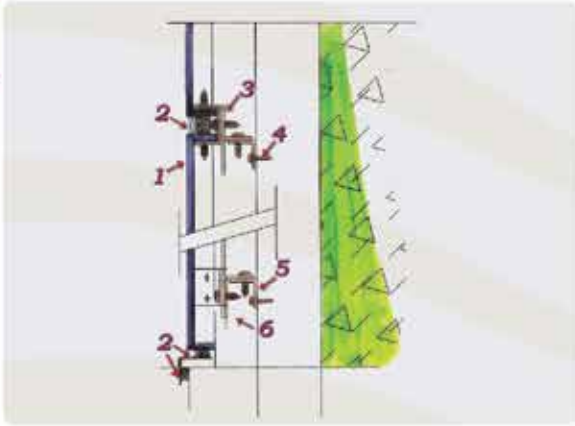
INSTALLATION METHODS

1



1- WELLBOND Sheet
2- Gap Filler
3- Securing Frame For Aluminum Window
4- Framework
5- Insulating Materials

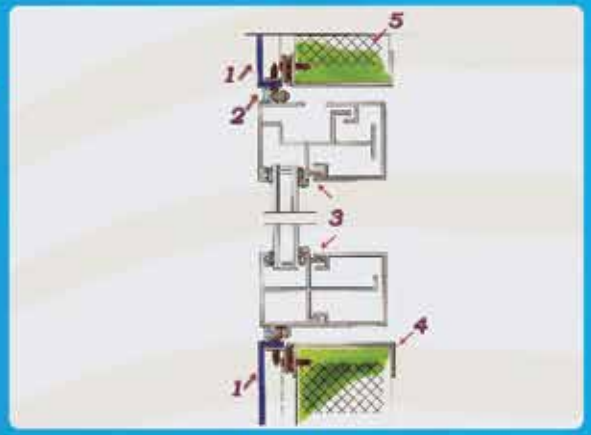
2



1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)
3- T-Shaped Aluminum
4- Self Taping Screw
5- Iron Angle
6- Aluminum Fitting

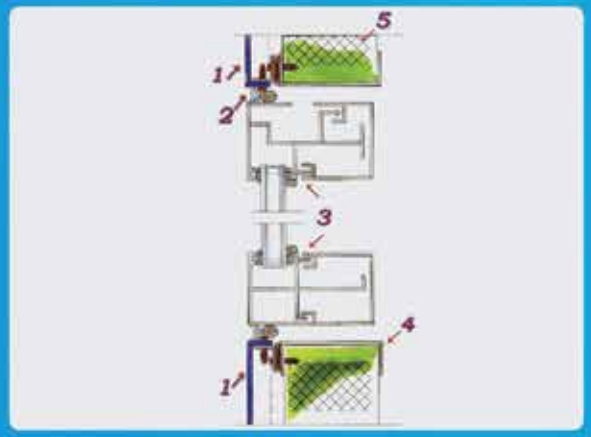
WELLBOND TECHNICAL SUPPORT

3



1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)
3- Securing Frame For Aluminum Window
4- Framework
5- Insulating Materials

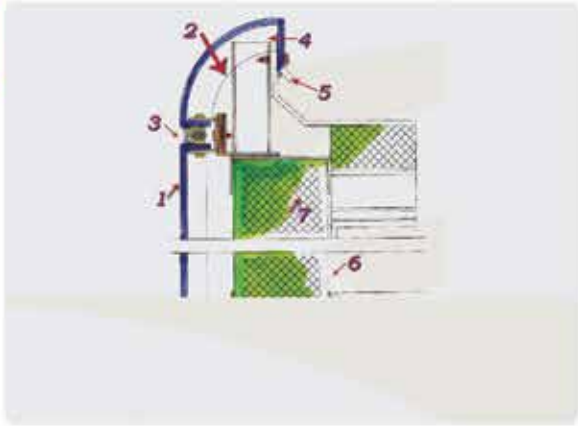
4



1- WELLBOND Sheet
2- Steel Framework
3- Aluminum Angle
4- Steel Framework

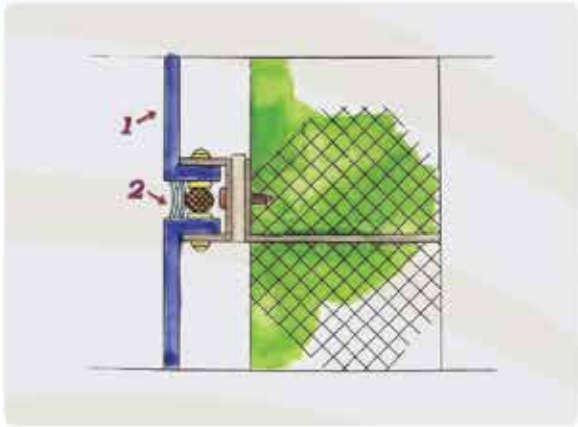
INSTALLATION METHODS

5



1- WELLBOND Sheet
2- Camber Line
3- Gap Filler (Backing Rod + Silicon)
4- Self Taping Screw
5- Water Board
6- Framework
7- Insulating Materials

6



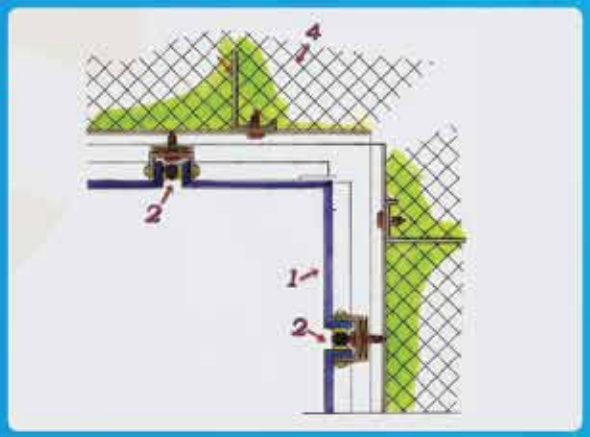
1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)

WELLBOND TECHNICAL SUPPORT

7

1- WELLBOND Sheet
2- Aluminum Fitting
3- Gap Filler (Backing Rod + Silicon)
4- Framework
5- Insulating Materials

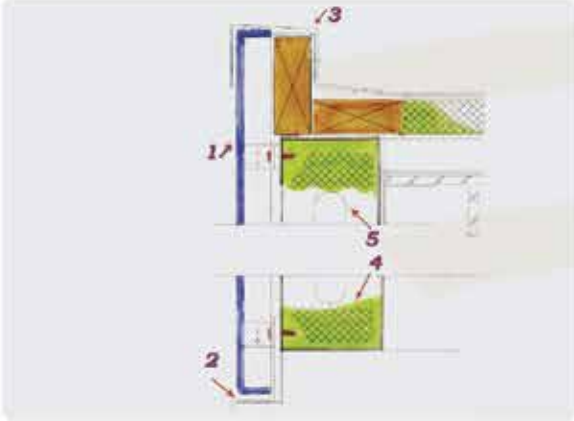
8



1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)
3- Framework
4- Insulating Materials

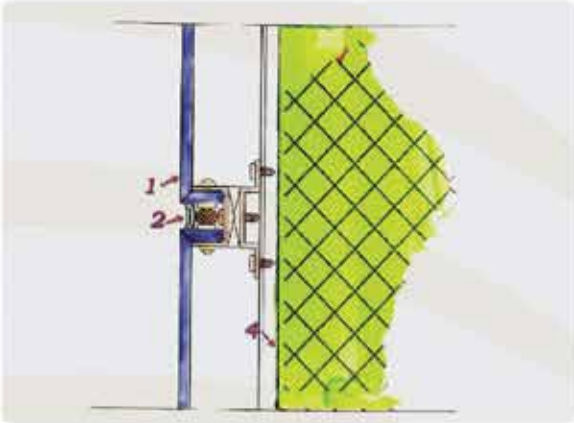
INSTALLATION METHODS

9



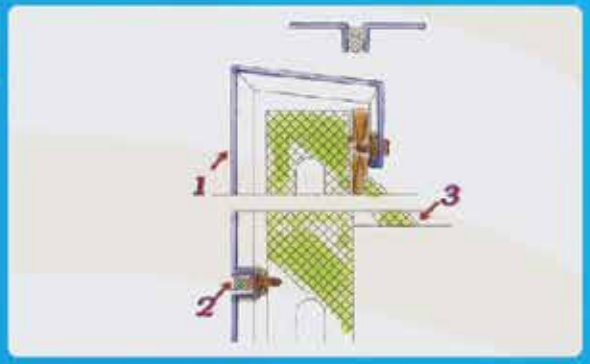
1- WELLBOND Sheet
2- Gap Filler
3- Break water
4- Insulating Materials
5- Supporting Frame

10

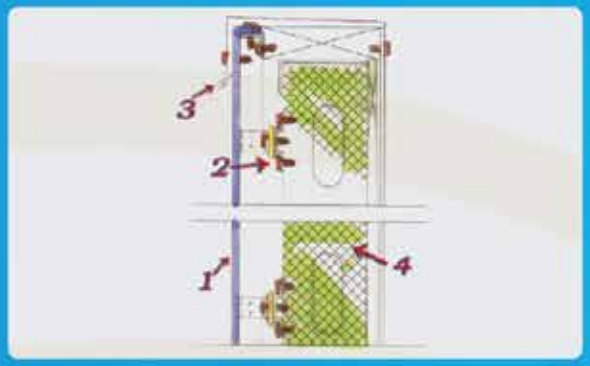


1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)
3- Insulating Materials
4- Framework

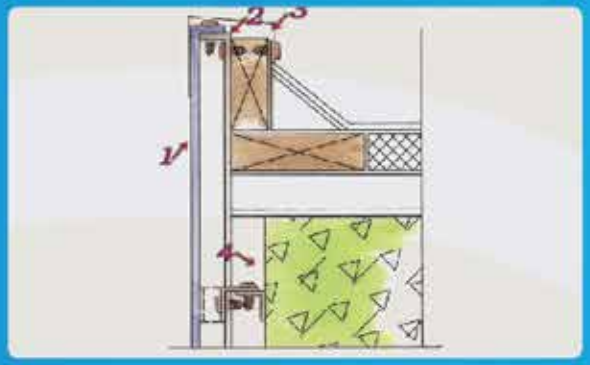
11



Cement Post Construction Method
1- WELLBOND Sheet
2- Gap Filler (Backing Rod + Silicon)
3- Support



Supporting Frame Constructing Method
1- WELLBOND Sheet
2- Framework
3- Break Water
4- Insulating Material



Common Constructing Method
1- WELLBOND Sheet
2- Iron Angle
3- Break Water
4- Adjustable Framework

WELLBOND PROJECTS

QATAR - Main supplier "EGY Gulf Panel Company "

Some Projects uses WELLBOND Product

Project	Location
City Tower Doha	AL-Dafna
Toyota Showrooms/AL-Tarek for cars	AL-Wakra
Engineering Consultant Group	AL-Doha
AL-Jazzera channel Main Building	AL-Doha

Kingdom of Saudi Arabia - Supplier "Zuhair El-Habib Company"

Some Projects uses WELLBOND Product

Project	Location
Emirates House	AL-Riyadh
AL-Ryyaad Bank ATM Machines	Across the Kingdom
Aseer Mall	Abha
Range Rover	AL-Riyadh
Nwazy Makkah Hotel	Mecca
AL-Ahli Saudi Bank	Across the Kingdom
Administrates and residential buildings	AL-Alia Road – AL-Riyadh

Some Other Projects in Kingdom of Saudi Arabia

Project	Location
Saber Factory for Aluminum	Al-Dammam
Aluminum for architectural systems	AL-Riyadh
Gavasco for Aluminum	Al-Riyadh
AL-Esraa for Aluminum	AL-Madina
Mohammed AL-Khaldy Commercial Org	Jeddah – AL-Riyadh – AL-Dammam
AL-Rymal Company for Constructions	Jeddah
ALUBATRIC Company	

Sudan

Project
Yousef Al-Basher Dafaa-Allah Company
ALUMINA Company
African Falcone
Part of Al-Khartoum Airport
AL-Masa Hotel
Gulf Accountants Building

OUR MOST IMPORTANT PROJECTS ARE IN KENYA, NAIROBI, TANZANIA (COMESA REGION)

Project	Location
Crowne Plaza Hotel	Kenya- Nairobi
Kenyatta Center	Kenya- Nairobi
Uganda Great Mall	Uganda- Kampala
The Palace of Pearl Hotel	Burundi

THERE ARE SEVERAL PROJECTS THAT HAVE USED WILL BOND IN THE GULF ARAB REGION

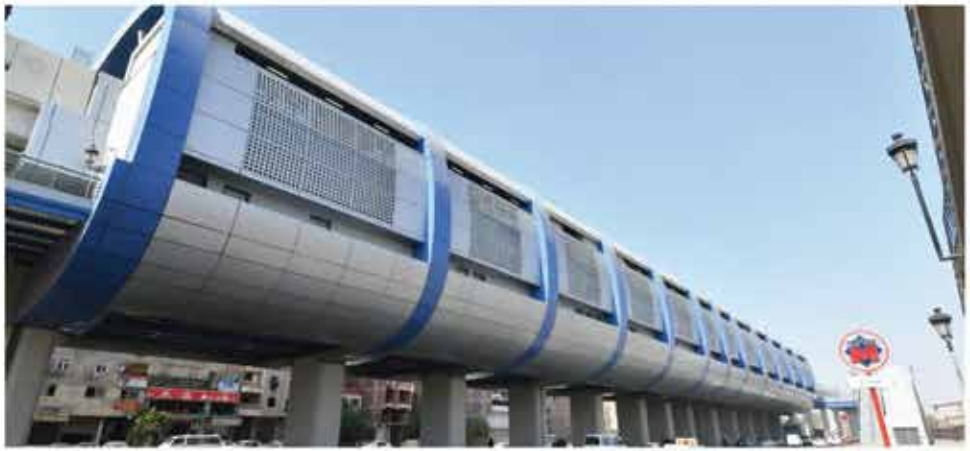
Project	Location
Tower of Betis	Sultanate of Oman
El Melhem Tower	Bahrain - Manama
Nokia headquarters	Iran - Tehran
Tower of Massa and other works in Gaza	Palestine

CLIENTS AND LOCAL PROJECTS

No.	Project Name	Contractor	Color Code	Qty / M²
1	Gardenia Mall	First Cass	9010 - Off White 1014 - Red	14,000 8,000
2	Galala Resort	Harronco ECCQ Hassan Allam EEG	9010 - Off White 1001 - Brushed silver 1003 - Silver Metallic	3,500 8,000 9,000
3	Olympic Village Port Said	AGC Atlram For General Contrect	1005 - Silver Matt 1055 - Blue 1012 - Red 1085 - Yellow	6,000 5,600 3,000 2,800
4	Conference Hall	Talaat Moustafa Hassan Allam	1034 - Pink German (Fire RETARDANT)	4,000
5	Damietta University	Arab contrt Al Tholathya	1010 - Silver Metallic	8,000
6	Safaga Maritime Port	Sama Tal	1049 - Silver Champagne 1010 - Silver Metallic	6,500 1,400
7	Peace Icon Sharm El Sheikh	Alumisr	1010 - Silver Metallic	4,588
8	CFC Business Park	Techno Frame	1010 - Silver Metallic	6,790
9	Dar El Madfaeaa	Modern Tal	1084 - Copper 1089 - Milky White	2,800 1,425
10	Petroment	Alumisr	1048 -Dark Champagne	3,567

OUR MOST IMPORTANT PROJECTS ARE IN SUDAN, KENYA, NAIROBI, TANZANIA (COMESA REGION)

No.	Project Name	Contractor	Color Code	Qty / M^2
11	Suhag Olympic Village	Contrede EGY	2101 - White 1012 - Red (Fire RETARDANT)	2,200 2,000
12	Total Gas Station	Legend Wardshan	7006 - Brown	10,000
13	Sharm El Sheikh International Hospital	Finish Company	1005 - Silver	2,800
14	Egyptian Post Office	El Saey,Co	9959 - Post Green	22,000
15	El Ezaby Pharmacy	Sub-Contractors	1055 - Blue	8,000
16	Kafr El Sheikh University	Hart Man Egypt	1003 - Silver Metallic	2,000
17	Stop And Shop Mall (5th settlement)	El Madina Al Monawara	1089 - Milky White 1017 - Orange 1009 - Black	2,900 2,000 500
18	El Gallaa Hotel (Salah Salem)	Amlak	1084 - Copper	5,000
19	Port Said General Hospital	Sama Tal	1007 - White	4,000
20	Abo Khalifa Hospital (Ismailia)	Techno Frame	1005 - Nano Coating	7,000



GREATETR CAIRO METRO LINE3 PHASE 4B

ABOUT THE PROJECT

Sub Contractor: EGYPANEL
Quantity: 22,000
Code: FR 9006,5023

CARREFOUR ISMAELYA

ABOUT THE PROJECT

Sub Contractor: New Cairo

Code: nano 1007 FR Quantity: 2700 m² **Code:** nano 1005 FR Quantity: 1500 m²

Code: nano 1034 FR Quantity: 400 m²

CIVIC EDUCATION CENTER

ABOUT THE PROJECT

Sub Contractor: الشركة المصرية للمقاولات

Code: nano 1005 Quantity : 1800 m² - nano 1034 FR Quantity: 1500 m²

THE FURN

ABOUT THE PROJECT

Sub Contractor: Modern Tal
Code: 1084L Quantity : 2500 m²
Code: 1089G Quantity : 1800 m²

EGYPT INTERNATIONAL EXHIBITION CENTER

ABOUT THE PROJECT

Sub Contractor: Concept Co. - El Roaa Co.
Code: 1034G FR Quantity : 5500 m²
Code: 1048G Quantity: 2500 m²

EL GALAA HOTEL

ABOUT THE PROJECT **Sub Contractor:** الشركة العربية للإنشاءات

Code: 1084L Quantity: 4500 m²

EL GALALA

ABOUT THE PROJECT **Code:** 1001 Quantity : 17000 m²

Code: 1003 Quantity : 8000 m²

FACULTY OF MEDICINE IN SUEZ

ABOUT THE PROJECT

Sub Contractor: Al Ahram Co.
Code: 1089 Quantity: 2000 m^2 - 1007GS Quantity: 3500 m^2
Code: 1085 Quantity: 1100 m^2 - 1024 Quantity: 2200 m^2

GARDENIA MALL

ABOUT THE PROJECT

Sub Contractor: First Class
Code: 9010 Quantity : 18.000 m^2
Code: 1014 Quantity: 1000 m^2

HOUSING & DEVELOPMENT BANK

ABOUT THE PROJECT **Code:** 1089 Quantity: 1100 m²

Code: 1009 Quantity: 850 m²

MEDICAL STATEMENT PORTSAID

ABOUT THE PROJECT **Sub Contractor:** Sama Tal

Code: 1007G Quantity : 5600 m²

MERCEDES BENZ

ABOUT THE PROJECT

Sub Contractor: Mobica
Code: 9010 Quantity: 1200 m²

PORTSAID GATES

ABOUT THE PROJECT

Sub Contractor: Technoframe
Code: 1001 Quantity : 3600 m²

PORTSAID MEDICAL INSURANCE

ABOUT THE PROJECT

Sub Contractor: مصر الحره

Code: 1035 Quantity: 2850 m²

Code: 1003 Quantity: 1000 m²

REGIONAL GATES

ABOUT THE PROJECT

Sub Contractor: Technoframe

Code: 1001 Quantity : 2200 m²

PORTSAID STADIUM

ABOUT THE PROJECT

Sub Contractor: Al Ahram Co. Al Tanmya Co.

Code: 1055G Quantity: 4800 m^2 **Code:** 1012G Quantity: 3200 m^2

Code: 1005G Quantity: 10.00 m^2 **Code:** 1085G Quantity: 2600 m^2

ASWAN STADIUM

ABOUT THE PROJECT

Sub Contractor: Contrade Egypt (Tarek Riyad)

Code: 1085 Quantity : 2500 m^2 **Code:** 1101 Quantity : 2300 m^2

Code: 1055 Quantity : 1400 m^2 **Code:** 1058 Quantity : 1560 m^2

SAFAGA MARITIME PORT

ABOUT THE PROJECT

Sub Contractor: Sama Tal

Code: 1049 Quantity: 11.000 m²

Code: 1003 Quantity: 2000 m²

SHARM EL SHEIKH HOSPITAL

ABOUT THE PROJECT

Sub Contractor: Glass House

Code: 1005G Quantity : 3500 m²

48 Building 5th Settlementfurn

ABOUT THE PROJECT

Sub Contractor: New Cairo
Code: 1034G FR Quantity: 6500 m²

ABOU KHALIFA HOSPITAL

ABOUT THE PROJECT

Sub Contractor: Technoframe
Code: nano 1005 Quantity : 6500 m²



NEW CAPITAL HOSPITAL

➤ **ABOUT THE PROJECT**

Sub Contractor: EGYPANEL
Quantity: 5,000



AIR FORCE HOTEL (QASID KHEIR)

➤ **ABOUT THE PROJECT**

Sub Contractor: EGYPANEL
Code: 1034,1048
Quantity: 1,700

FACULTY OF MEDICINE - SUEZ UNIVERSITY

ABOUT THE PROJECT

Sub Contractor: Raslan Company

Quantity: 12,000

FACULTY OF MEDICINE - PORT SAID UNIVERSITY

ABOUT THE PROJECT

Sub Contractor: El Mohandes Company

Quantity : 15,000

WATANYA PETROLIUM STATION

ABOUT THE PROJECT

Sub Contractor: B2b group
Code: 1084,1003
Quantity: 4,000

ACC

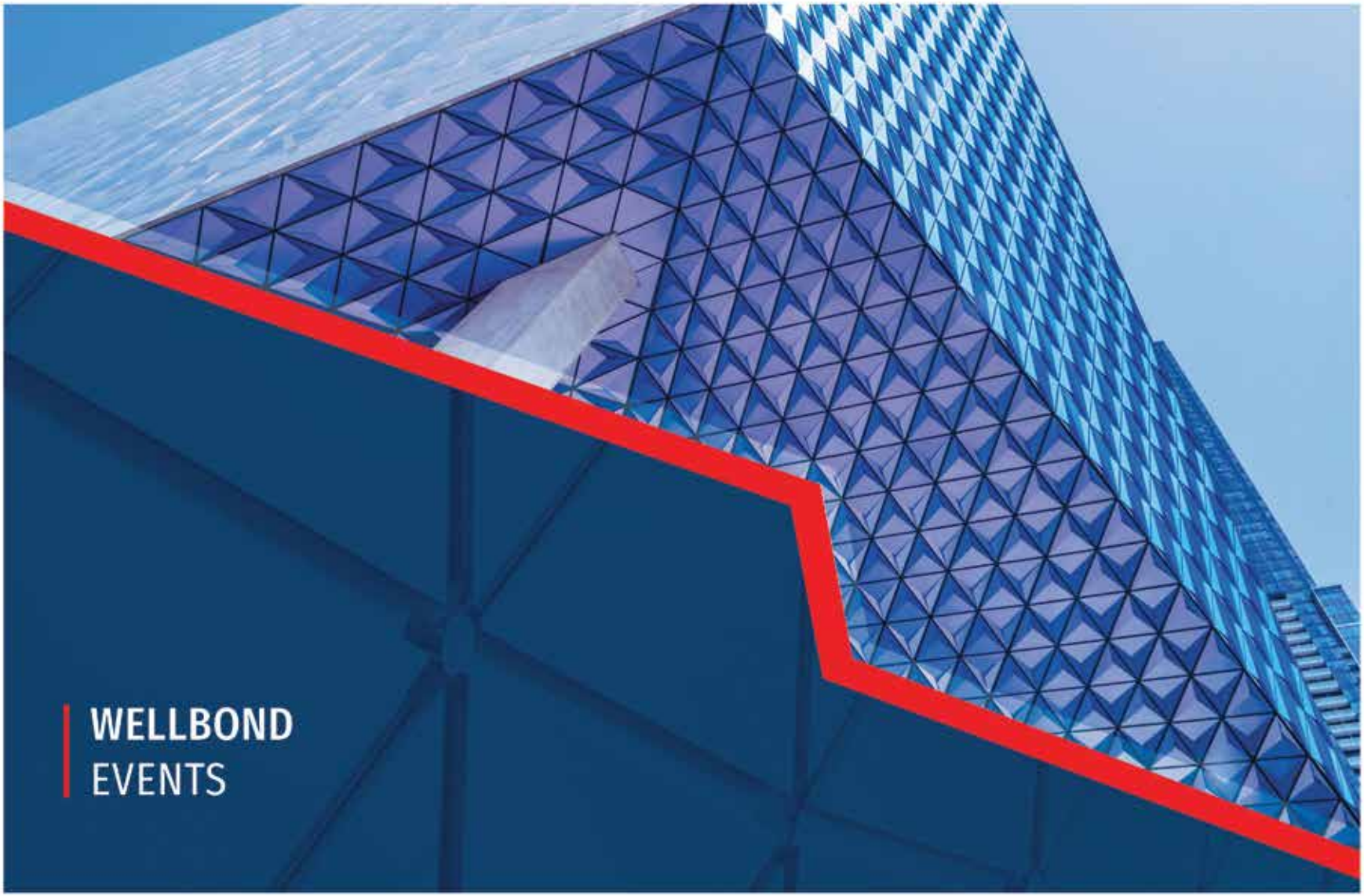
ABOUT THE PROJECT

Sub Contractor: Ramy Fathy
Code: GXX-SD1003
Quantity: 30,000

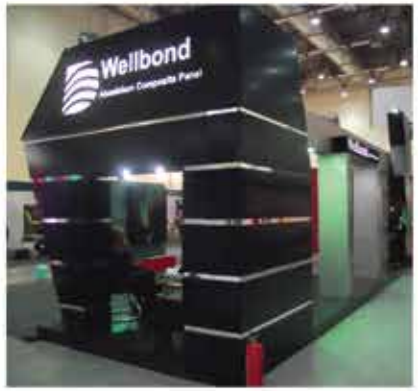
NN 1

ABOUT THE PROJECT

Sub Contractor: Amaco, Metal
Code: 1101
Quantity: 11,000


WELLBOND
EVENTS

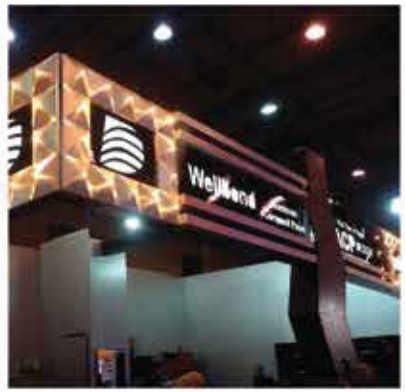
WINDOOREX EGYPT 2012



INTERCONTINENTAL CITY STARS 2013

WINDOOREX EGYPT 2014

SAUDI ARABIA RIYADH 2015



WINDOOREX EGYPT 2016

WINDOOREX EGYPT 2017

WINDOOREX EGYPT 2018

WINDOOREX EGYPT 2019

NOTES

Things to do

WELLBOND

AOI
الهيئة العربية للتصنيع
ARAB ORGANIZATION FOR INDUSTRIALIZATION

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