TABLE OF CONTENTS

TECHNOPANEL

TECHNOPANEL

INTRODUCTION

PANELS TECHNOLOGY FACTORY (TECHNOPANEL) is a company that is engaged in the production and manufacture of ACP – Aluminum Composite Panel products or wall claddings. Throughout this type of industry, we are proud to be the first ACP manufacturing company in KSA.

Since the year 2006, we have been establishing the growing market in ACP requirement on modern architecture and design. The aim of our business is to meet the constant demand for ACP products as we expand our sales network from local to the international market.

As leaders in the industry, we strive to achieve a high level of competitiveness by expanding our operations. Our main office is located in the city of Riyadh that covers a land area of 3,800 ^{m2}. Then, about 60 km south of Riyadh is our operations hub that covers a land area of 8,000 ^{m2}.

Furthermore, we have increased our production capacity to 5 million ^{m2} annually, using the latest advancements in ACP technology. Therefore, we can ensure our clients our full commitment to deliver their needs with remarkable quality.

The quality driven standards of **TECHNOPANEL** enables us to maintain our stature through acquiring the ISO 9001:2015 Quality Management System (QMS), participated in drafting the Saudi Arabian Standard (SASO) 2752 for ACP, conformance with the American Society for Testing and Materials (ASTM), ISo Standard and specimen samples tested by the SGS International Laboratory

TECHNOPANEL's commitment to innovate and serve customers is to cater the interior and exterior wall claddings, offering a broad selection of colors, textures and elegant finishing. The products we offer also come with various sizes and dimension to accommodate the requirements of our customers. It is our pride to offer our customers a "*20 year guarantee of quality coating*" on the material surface.

The combination of expertise and aggressiveness of **TECHNOPANEL**'s team can continually exceed our *customers' expectation, value for money and on-time delivery*.

تكنو بانل تنشئ أول مجمع صناعي لألواح الألمنيوم المعزولة لتكسية الجدران وأعمال الديكور الخارجي والداخلي بمدينة الرياض . ليصبح بذلك المصنع الأول لإنتاج هذة الألواح وذلك لتلبية الطلب المتزايد من قبل المصممين المعماريين ومسئولي صناعة البناء بالمملكة

ولذلك فإننا سخرنا جهودنا وطاقاتنا لعمل آليات جديدة وتجهيزات إضافية وإستقدام طاقات بشرية على أعلى مستويات المهارة والجودة لإنتاج هذا المنتج واليوم تمتلك تكنوبانل خط الانتاج الأول لصناعة الألواح الألمنيوم ليتوافق الإنتاج مع المواصفات العالمية الأمريكية والغربية والصينية وتمتلك تكنوبانل أجهزة متطورة ومتميزة لتواكب متطلبات السوق السعودي والعالمي

FACTS AND FIGURE

- Foundation - **PANELS TECHNOLOGY FACTORY (TECHNOPANEL)** is the first Aluminum Composite Panel (ACP) processing facility in the Kingdom that was established since year 2006.
- Vision - The core of our business is to be the prime contributors of modern architectural design in the building industry by supplying the most innovative types of ACP products.
- Quality Oriented - Our company has been certified with ISO **9001 :2015** Quality Management System (QMS).
- Technical Contribution - We are a major participant in drafting the Saudi Arabian Standard (SASO 2752) for ACP – interior and exterior wall claddings.
- Quality Assurance - Conformance with the American Society for Testing and Materials and specimens that are tested by International Laboratories
- Growth - Leader in the local market and expanding our network through product exports to the neighboring countries such as Egypt, Syria, Qatar, **Bahrain**, **Oman**, Yemen, Kuwait, Jordan, Lebanon, New Guinea and Congo.
- Durability - We offer "20 Years Guarantee of Quality Coating".
- Capability - Using the latest advancements in ACP technology, we have an annual production capacity of 5 million ^{m2}.
- Development – The main office and logistics center is situated in the city of Riyadh and established a large scale operations facility 60 km north of Riyadh.

- لقد تم إنشاء مصنع تقنية الألواح (تكنوبانل) في ٥ / ٥ / ٢٠٠٥ م .
- أول مصنع ألواح معزولة يحصل على علامة الجودة السعودية ساسو .
- الإنتاج وفقا للمواصفات القياسية السعودية ساسو ٢٠١٦ / ٢٧٥٢ .
- التصدير للعديد من الدول الصديقة كمصر وسوريا وقطر والكويت واليمن والاردن ولبنان وغينيا والكونغو والسودان .
- المصنع الوحيد في المملكة العربية السعودية والذي يعطي ضمان لمدة ٢٠ عاما ضد تغير الألوان وتفكك الصفائح .
- تم شراء وتركيب خط الانتاج الثاني وفق أحدث تقنيات صناعة الألواح المعزولة بالعالم . وقد بدأ أول إنتاج له في يناير ٢٠٠٩ و الخط الثالث عام ٢٠١٤ والخط الرابع عام ٢٠١٨ .
- والآن يمتلك تكنوبانل الخط السابع وفق أحدث التقنيات في صناعة ألواح الألمنيوم المعزولة والمقاومة للحريق .
- المصنع الوحيد بالمملكة الذي يوجد لدية مختبر للجودة لتطبيق معايير الجودة والسلامة .
- المصنع الوحيد الذي يقوم بإستخدام فيلم الحماية من شركة (بولي فيلم - ألمانيا)بمقاومة الأشعة البنفسجية لمدة ١٢ شهر من تاريخ التركيب .

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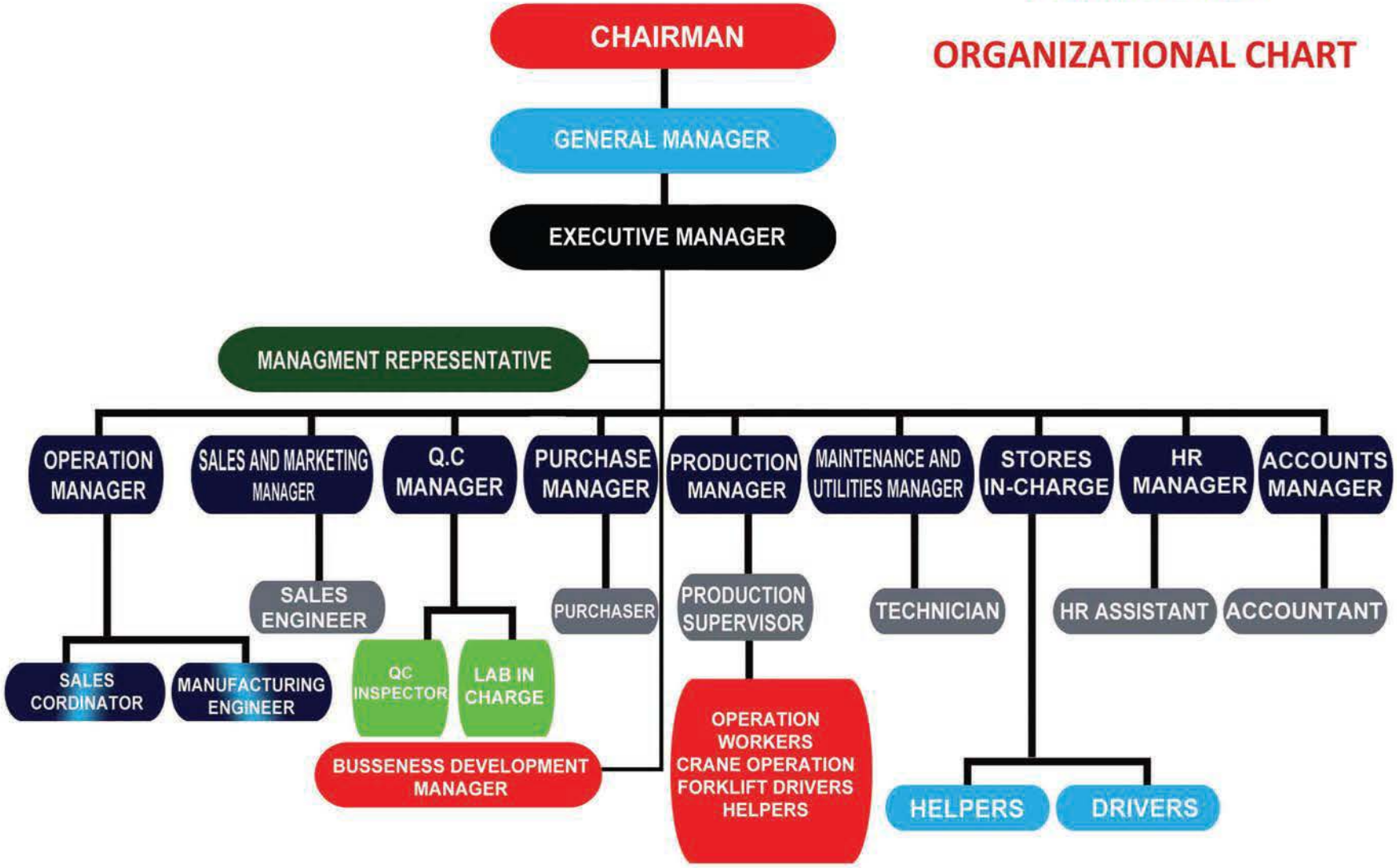
ORGANIZATIONAL CHART



TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

PANELS TECHNOLOGY FACTORY (TECHNOPANEL)

INTEGRATED MANAGEMENT SYSTEM POLICY

We are committed to provide excellent products of

ALUMINUM COMPOSITE PANELS

We strive to achieve this by:

- Compliance with all applicable legal and other requirements.
- Continual improvement in quality, environmental, health and safety performance with the ultimate goal of zero complaints, zero injuries and zero emissions of toxic and hazardous materials.
- Design and operation of our plants and facilities in a manner that protects the environment and the health and safety of our employees and the public.
- Maintain an Integrated Management System satisfying requirements which include ISO 9001:2015,ISO 14001:2015, ISO 45001:2018 standards.
- Encouraging opportunities for continual improvement in the effectiveness of Quality, Occupational Health, Safety and Environmental systems in all areas of our business management.
- Effective communication of this policy to all employees and contractors of the company.
- Prevention of injury or ill health to people, and pollution to the environment.
- Conducting an annual management review to monitor the overall effectiveness and suitability of our Integrated Management System, including this policy, establishing and reviewing of objectives, and agreeing appropriate changes with senior management. This policy will be implemented through the systematic application of good engineering practice and quality management to all activities, together with the active involvement and conscious improvement of all staff.

Mr. Abdul Rahman Saad Bin Rasheed

Deputy General Manager

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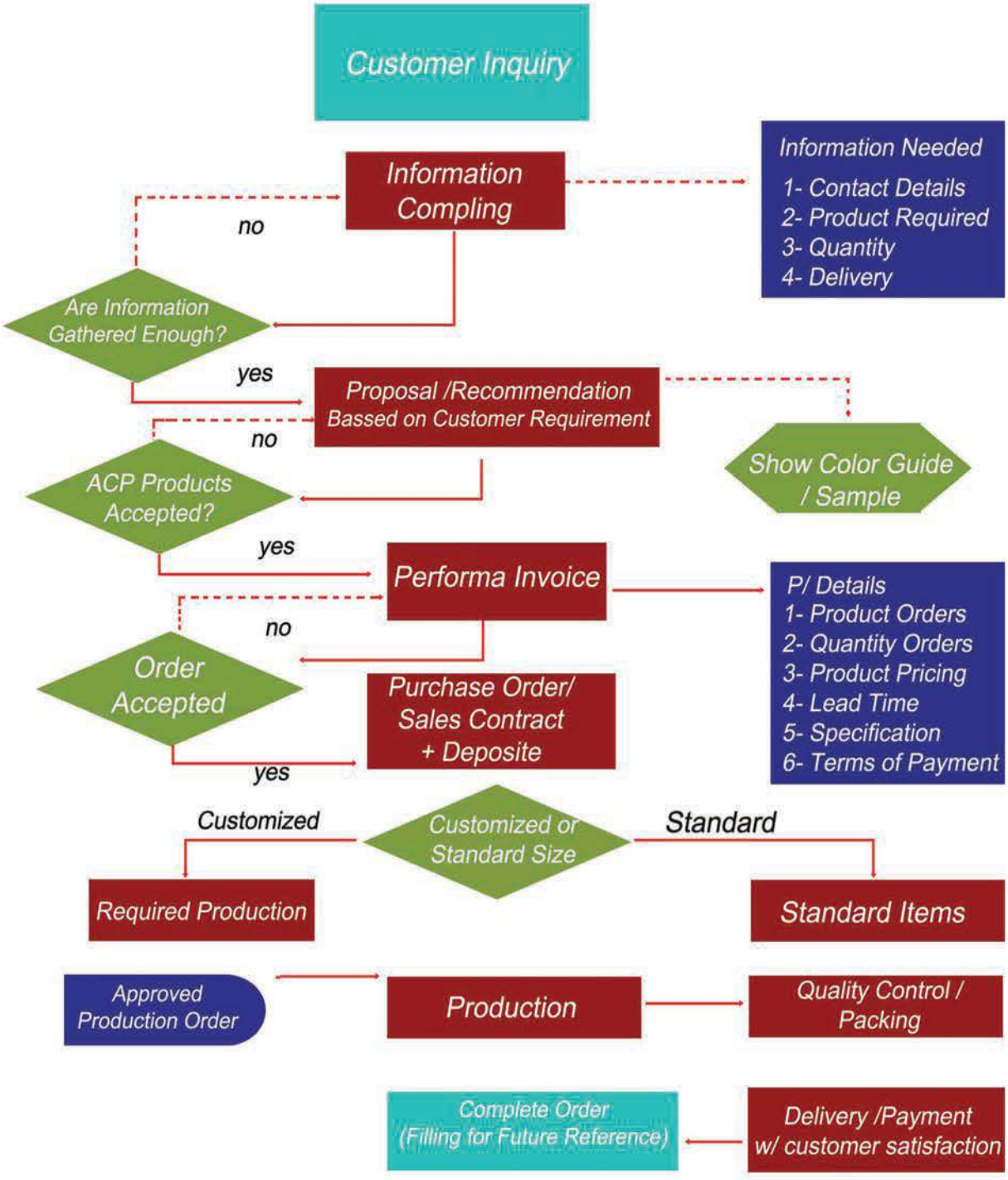
CUSTOMER SERVICE FLOW CHART



FR A2 PROCESS AND PRODUCTION LINE

The most recent innovations on ACP machine technology with high-speed capacity that can produce from 800 mm to 1600 mm in width and 4 mm to 8 mm in thickness which can guarantee notable quality and high product performance.

1. A2 Core Uncoil Station
2. FR A2 Core Joint Station
3. FR A2 Core Heating & Laminating Oven Station
4. Uncoiling Section
5. Composite Section
6. Cooling Section
7. Protective Film Station
8. Cutting Station
9. Unloading Station

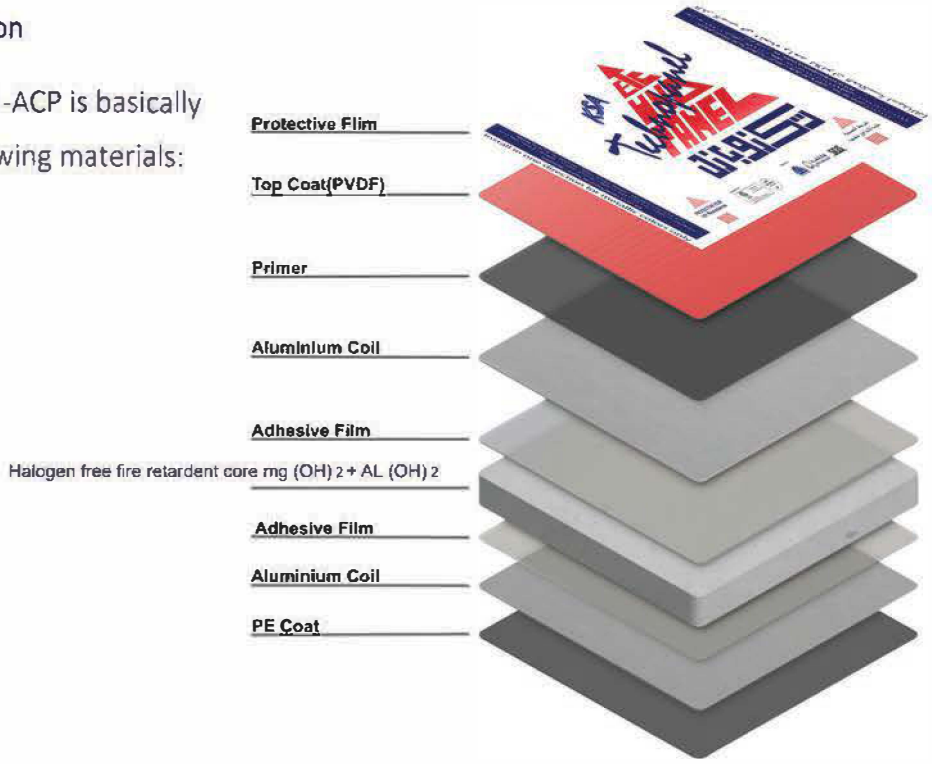
FR A2 - ACP TECHNICAL DATA SHEET

Product Description

TECHNOPANEL Aluminum Composite Panel (A.C.P)FR A2 is high performance fire retardent , consisting of two sheets of aluminum bonded to each side of a laminating hallogen free compound core material made of MG $(OH)_2$ and $Al(OH)_2$ which are inorganic compound that have non fire properties , lowest smoke generation.

Product Composition

TECHNOPANEL FRA2 -ACP is basically composed of the following materials:



1. POLYVINYLIDENE DIFLUORIDE (PVDF) COATING – paint for the front aluminum sheet with high non-reactive and pure flouropolymer 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, chalking and long-term retention of gloss and color. with coating thickness more than (32) micron

2. ALUMINUM SHEETS - two sheets of aluminum that is bonded to each side of a hallogen free fire retardent core. They have excellent tensile strength, yield strength and elongation rate and with high resistance to corrosion. ,and highest fire resistant performance , which can quality NFPA - 285 test

Type of Alloy	3003
Thickness	0.40 mm

3. Hallogen Free Fire retardant core the main core of Technopanel FR A2 - ACP that have highest fire resisting charecterstics. FR A2 ACP only made up of inorganic compound MG (OH)2 and AL (OH2) both compounds are non fire and lowest smoke generation.

4. POLYESTER COATING – a fifteen (15) micron polyester-based coating for the back aluminum sheet that serves as an aid in protecting **TECHNOPANEL** ACP from risks of exposure to corrosion on the back surface of the panel after installation.

5. PROTECTIVE FILM - The decorative surface is being covered by an 80 micrometer thick self-adhesive protective film to protect it from scratch and any possible damages during processing, storage and installation. It is composed of two layers, the White surface with **TECHNOPANEL** logo on the outer side to deflect ultraviolet rays and the Black surface from the inner side to prevent ultraviolet rays from penetrating the inner surface.

❑ Product Dimension

1. Thickness : 4 mm to 8.0 mm
2. Width : 800 to 1600 mm
3. Length : 5800 mm

Provision: or under customer's requirement between 2000 to 6000 mm.
Note: Technopanel's standard stock is 5800 x 1240 mm (L x W).

4. Tolerances

Size	Permissible Tolerance
Length ,mm	±3
Width, mm	±2
Thickness, mm	±0.2
Deviation of diagonal, mm	≤5
Out of straight at sides, mm/m	≤5
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 the appearance criteria for Aluminum Composite Panel (Outside and Inside Cladding) with maximum allowable blemishes and defects on the criteria. As per SASO ISO 4628- parts: (1 to 5.7.10/2016) part 6/2011 .part 8/2012 and SASO ASTM

❑ Product Properties

1. Panel Weight Density

ACP Thickness (mm)	Panel Weight (kg/sq.m)
4	9.01± 0.5
5	10.3 ± 0.5
6	11.9 ± 0.5

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Paint/Coating Properties				
Paramaters	Test Methos	Unit	Result	Specification Limit: SASO 2752:2019
Coating thickness	SASO ISO 2360:2012	µm	39.8	≥30
Pencil hardness	SASO GSO ISO 15184:2015	-	F-3H	≥HB
Coating Flexibility (T- Bent test)	ISO 17132:2007	-	Pass	≤2 Without any cracks damage on the coating
Adhesion Grade	SASO ISO 2409:2020	Grade	0*1	≤1
Impact resistance(kg.cm)	SASO ISO 6272-2:2014	-	No cracks observed at 50 kg.cm	Shall not be any peel off and cracks
Abrasion resistance	SASO ASTM D 968:2017	Lµm	>2	≥ 2
Stain resistance	SASO ISO 11998:2007	%	2	≤5
Chemical Resistance Properties				
Alkali resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Acid resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Oil resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Solvent resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Hot water resistance*	SASO ISO 2812-2:2014	-	Resistant	Shall be resistant
Weathering /Aging Properties				
Accelerated Weathering at 2000 hours	SASO ISO 16474-2:2015	-	No change observed	Shall have no change
Gloss Deviation*	SASO ISO 2813:2015	-	4	≤10
Salt Fog Resistance at 2000 hours	ISO 11997-1:2017	-	No change observed	Shall have no change

Coating Performance

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ALUMINIUM COMPOSITE PANEL

RESEARCH AND PERFORMANCE

PVDF Performance Against Other Coatings

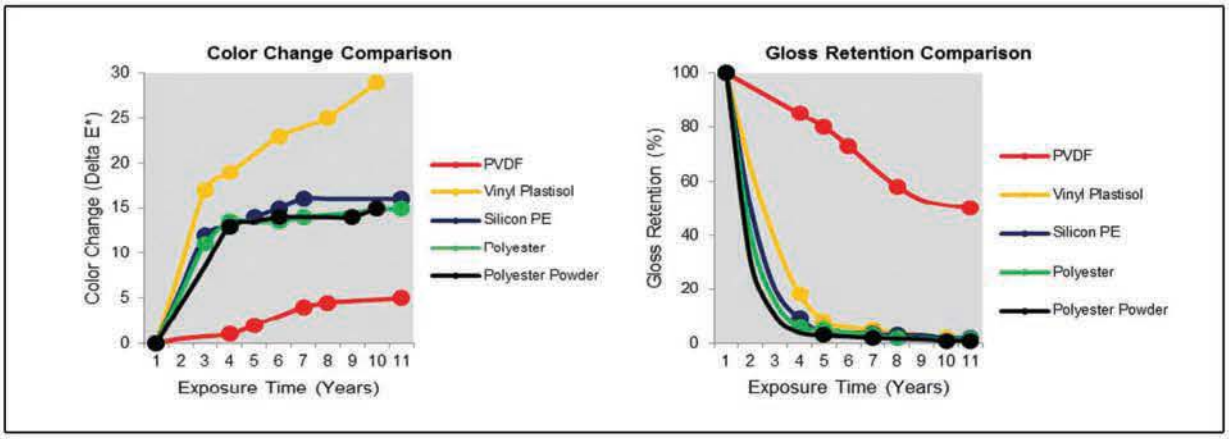
Weathering Properties	PVDF	Acrylic	Silicon Polyester	Polyester	Vinyl Plastisol	Urethane	Anodized
Color Retention	5	3	4	2	2	3	3
Gloss Retention	5	3	4	2	2	3	3
Chalking	5	3	4	2	2	3	3
Humidity Resistance	4	4	4	4	4	4	2

Physical Properties	PVDF	Acrylic	Silicon Polyester	Polyester	Vinyl Plastisol	Urethane	Anodized
Abrasion Resistance	5	3	3	2	3	4	3
Impact Resistance	5	3	3	3	5	3	3
Flexibility	5	2	2	3	5	4	2
Hardness	3	5	4	5	3	4	4

Chemical Resistance	PVDF	Acrylic	Silicon Polyester	Polyester	Vinyl Plastisol	Urethane	Anodized
Acid and Alkali	5	3	3	3	5	3	2
Oil Stain	4	3	4	4	4	3	3
Water	5	3	3	3	4	3	2

Rating Performance : (5) Highest and (1) Lowest

PVDF Exposure Test



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FR-A2-ACP- Fire Performance Properties					
ASTM E84 – 21a: Standard Test Method for Surface Burning Characteristics of Building Materials					
Test Method	Parameter			Results	
				Actual Result	SASO-Requirement
ASTM E84 – 21a	FLAME SPREAD INDEX (FSI)			5	FSI: 26 - 50
	SMOKE DEVELOPED INDEX (SDI)			20	SDI ≤ 450
BS EN ISO-1716:2018 Reaction to Fire Tests for Products - Determination of the Gross Heat of Combustion (Calorific Value)					
Test Method	Parameter		No. of tests	Results	
				Continuous parameter- mean (m)	Compliance parameters
BS EN ISO-1716:2018	PCS≤ 4.0 MJ/m² (for External Non-Substantial component)	Topcoat + Primer	3	0.7	Compliant
		Back coat	3	0.2	Compliant
	PCS≤ 3.0 MJ/kg (for Substantial component)	Aluminium Skin	0	0	Compliant
		A2 Core	3	1.4	Compliant
	PCS≤ 4.0 MJ/m² (for Internal Non-Substantial component)	Adhesive	3	3.6	Compliant
	PCS≤ 3.0 MJ/kg (For product as a whole)			1.9	Compliant
BS EN 13823:2020 Reaction to Fire Tests for Building Products — Building Products excluding Floorings exposed to the Thermal Attack by a Single Burning Item					
Test Method	Parameter		No. of tests	Results	
				Continuous parameter- mean (m)	Compliance parameters
BS EN 13823:2020	FIGRA0.2MJ ≤ 120 W/s		3	5	Compliant
	THR600s ≤ 7.5 MJ		3	0.8	Compliant
	Lateral Flame Spread < Edge of specimen		3	< Edge of specimen	Compliant
	CRITERIA for subclass "s1"				
	SMOGRA, m²/s²		3	0	Compliant
	TSP600s ≤ 50 m²		3	16	Compliant
	CRITERIA for subclass "d0"				
	Flaming droplets/Particles within 600s		3	Nil	Compliant
CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH BS EN 13501-1:2018					
Fire behavior	Smoke Production			Flaming droplets	
A2	S	1	-	d	0
Reaction to fire classification: A2 – S1, d0					

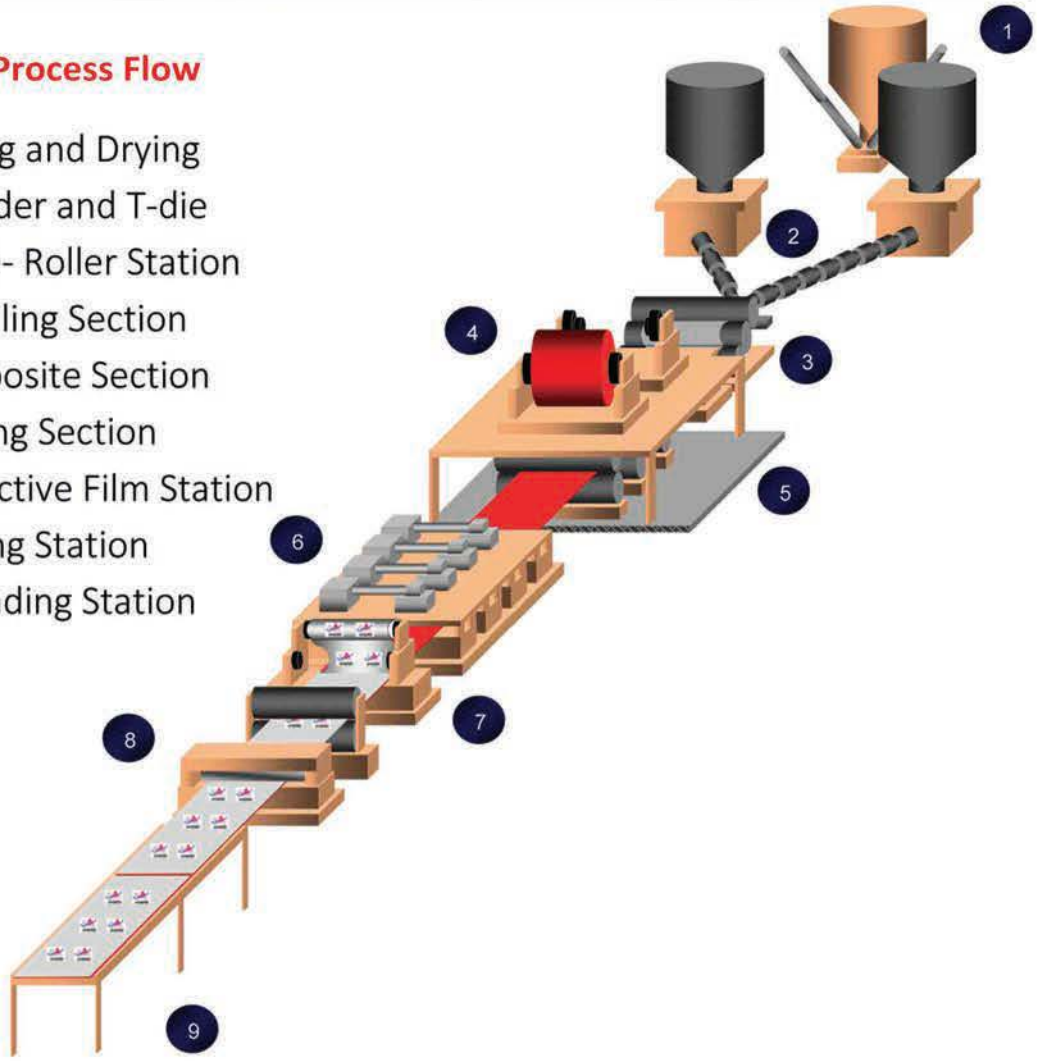
Core Thermal Properties				
Heat Deflection Temperature	SASO ISO 75-2:2014	°C	89	85 Min
Linear Thermal Expansion Coefficient	ASTM D 696:16	µm/m-°C	151	200 Max
Self-ignition temperature	SASO ASTM D1929:2015	°C	>350	343 Min
Temperature Resistance @ -50 to +80	Visual	-	No defect	-
Thermal conductivity of core,Kc	ASTM C 518-17 / BS EN ISO 6946:2007	W/mk	0.4148	-
Thermal resistance of core, Rc		m2K/W	0.0559	-
Internal surface resistance, RSI			0.13	-
External surface resistance, RSE			0.04	-
Total Thermal resistance, RT			0.2259	≥0.06
Thermal transmittance (U value)	ASTM C 518-17	W/m2.K	4.43	≤4.5
Physical and Mechanical Properties				
Drum peel strength	ASTM D1781-98 (2021)	N.mm/mm	107	≥100
180 degrees Peel Strength	SASO ISO 8510-2:2008	N/mm	9.15	≥9.0
Shear Strength	ASTM C393 / C393 M-16	MPa	23	≥22
Bending Strength	ASTM C393/C 393 M-16	MPa	109	≥100
Bend Elastic Module	ASTM C393/C 393 M-16	MPa	21856	≥20000
Acoustic Properties				
Sound absorption Factor	ISO 354:2003	-	0.042	-
Sound Transmission loss	ISO 717-1:2020	dB	25	-
Loss Factor	EN ISO 6721 Frequency range 100 - 3200 Hz	-	0.0086	-
Bending and Rigidity Properties				
Section Modulus W	DIN 53293-1982	cm3/m	1.77	-
Rigidity – Poisson's ratio	DIN 53293-1982	kNm2/m	0.31	-
Lacquering	FT-IR	-	Polyester	-

FR B1 PROCESS AND PRODUCTION LINE

The most recent innovations on ACP machine technology with high-speed capacity that can produce from 800 mm to 1600 mm in width and 4 mm to 8 mm in thickness which can guarantee notable quality and high product performance.

ACP Line Process Flow

1. Mixing and Drying
2. Extruder and T-die
3. Three- Roller Station
4. Uncoiling Section
5. Composite Section
6. Cooling Section
7. Protective Film Station
8. Cutting Station
9. Unloading Station



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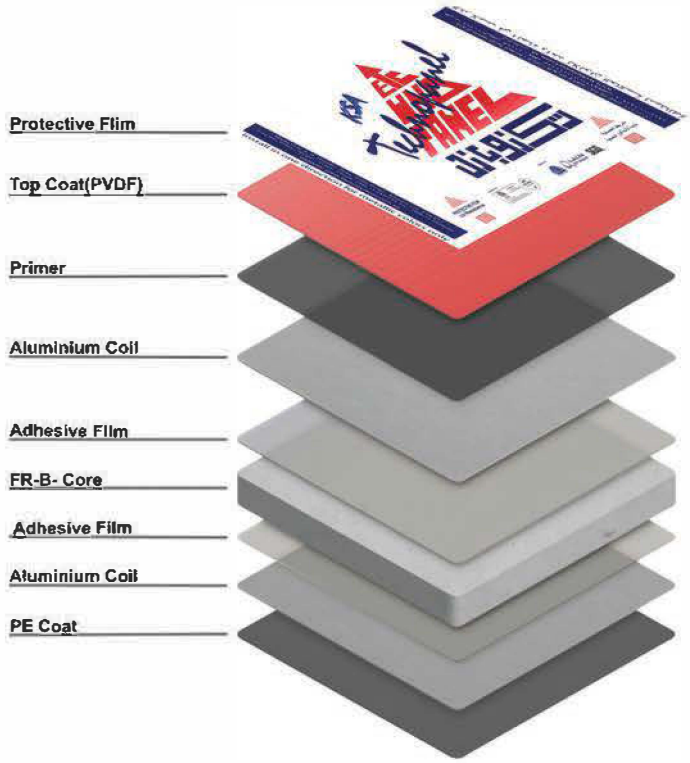
FR - B1 ACP - TECHNICAL DATA SHEET

❑ Product Description

TECHNOPANEL Fire-Retardant Aluminum Composite Panel (FR-ACP) is a high performance product consisting of two sheets of aluminum bonded to each side of a halogen-free fire-retardant PE core. It is suitable to use for exterior and interior wall cladding applications or for buildings under renovation that are designed to reduce the risk of structural fire. It has the capability of reducing flame spread for a specified intensity and/or duration, low smoke and delays heat penetration across on it.

❑ Product Composition

TECHNOPANEL FR-ACP is basically composed of the following materials:



1. POLYVINYLIDENE DIFLUORIDE (PVDF) COATING – paint for the front aluminum sheet with high non-reactive and pure flouropolymer 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, chalking and long-term retention of gloss and color. with coating thickness more than (32) micron

2. ALUMINUM SHEETS - two sheets of aluminum that is bonded to each side of a fire retardant polyethylene core. They have excellent tensile strength, yield strength and elongation rate and with high resistance to corrosion.

Type of Alloy	3003
Thickness	0.40 mm

3. HALOGEN-FREE FIRE-RETARDANT CORE – the main core of **TECHNOPANEL** FR-ACP that it has the capability of reducing flame spread for a specified intensity and/or duration, low smoke and delays heat penetration across it. It acts as a thermal insulation barrier where the role is to turn polymer into a char, which separates the flame from the material.

There are two important components that can be used as a fire retardant core for polymer applications. These components decompose at high temperatures absorbing considerable amounts of heat in the process. In addition to behaving as a fire retardant, it is very effective as a smoke suppressant when applied to polymers such as polyethylene.

The two components are:

$Mg(OH)_2$ Magnesium Hydroxide or $AL(OH)_3$ Aluminum Hydroxide

In addition to the performance of the FRPE core, it is Halogen-free that limits the use of hazardous substances on the product. The drive for creating these products is associated with the green movement as well as health concerns. When fire breaks out and harmful substances contained in plastics are ignited, toxic fumes are released into the surrounding area. Therefore, compliance with these directives is important in the preservation of life and the environment.

4. POLYESTER COATING – a fifteen (15) micron polyester-based coating for the back aluminum sheet that serves as an aid in protecting **TECHNOPANEL** FR-ACP from risks of exposure to corrosion on the back surface of the panel after installation.

5. PROTECTIVE FILM - The decorative surface is being covered by an 80 micrometer thick self-adhesive protective film to protect it from scratch and any possible damages during processing, storage and installation. It is composed of two layers, the White surface with **TECHNOPANEL** logo on the outer side to deflect ultraviolet rays and the Black surface from the inner side to prevent ultraviolet rays from penetrating the inner surface.

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Product Dimension

1. Thickness : 4 mm to 8.0 mm
2. Width : 800 to 1600 mm
3. Length : 5800 mm

Provision: or under customer's requirement between 2000 to 6000 mm.
Note: Technopanel's standard stock is 5800 x 1240 mm (L x W).

4. Tolerances

Size	Permissible Tolerance
Length ,mm	±3
Width, mm	±2
Thickness, mm	±0.2
Deviation of diagonal, mm	≤5
Out of straight at sides, mm/m	≤5
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 the appearance criteria for Aluminum Composite Panel (Outside and Inside Cladding) with maximum allowable blemishes and defects on the criteria.

Product Properties

1. Panel Weight Density

ACP Thickness (mm)	Panel Weight (kg/sq.m)
4	6.90 ± 0.5
5	8.30 ± 0.5
6	9.70 ± 0.5

Paint/Coating Properties				
Paramaters	Test Methos	Unit	Result	Specification Limit: SASO 2752:2019
Coating thickness	SASO ISO 2360:2012	µm	43.1	≥30
Pencil hardness	SASO GSO ISO 15184:2015	-	F-3H	≥HB
Coating Flexibility (T- Bent test)	ISO 17132:2007	-	Pass	≤2 Without any cracks damage on the coating
Adhesion Grade	SASO ISO 2409:2020	Grade	0*1	≤1
Impact resistance(kg.cm)	SASO ISO 6272-2:2014	-	No cracks observed at 50 kg.cm	Shall not be any peel off and cracks
Abrasion resistance	SASO ASTM D 968:2017	Lµm	>2	≥ 2
Stain resistance	SASO ISO 11998:2007	%	2	≤5
Chemical Resistance Properties				
Alkali resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Acid resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Oil resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Solvent resistance	SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Hot water resistance*	SASO ISO 2812-2:2014	-	Resistant	Shall be resistant
Weathering /Aging Properties				
Accelerated Weathering at 2000 hours	SASO ISO 16474-2:2015	-	No change observed	Shall have no change
Gloss Deviation*	SASO ISO 2813:2015	-	4	≤10
Salt Fog Resistance at 2000 hours	ISO 11997-1:2017	-	No change observed	Shall have no change

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ALUMINIUM COMPOSITE PANEL

TECHNOPANEL

Core Thermal Properties				
Heat Deflection Temperature	SASO ISO 75-2:2014	°C	91	85 Min
Linear Thermal Expansion Coefficient	ASTM D 696:16	µm/m-°C	148	200 Max
Self-ignition temperature	SASO ASTM D1929:2015	°C	>350	343 Min
Temperature Resistance @ -50 to +80	Visual	-	No defect	-
Thermal conductivity of core,Kc	ASTM C 518-17 / BS EN ISO 6946:2007	W/mk	0.3248	-
Thermal resistance of core, Rc		m2K/W	0.0828	-
Internal surface resistance, RSI			0.13	-
External surface resistance, RSE			0.04	-
Total Thermal resistance, RT			0.2528	≥0.06
Thermal transmittance (U value)	ASTM C 518-17	W/m2.K	3.96	≤4.5
Physical and Mechanical Properties				
Drum peel strength	ASTM D1781-98 (2021)	N.mm/mm	109	≥100
180 degrees Peel Strength	SASO ISO 8510-2:2008	N/mm	9.85	≥9.0
Shear Strength	ASTM C393 / C393 M-16	MPa	25	≥22
Bending Strength	ASTM C393/C 393 M-16	MPa	113	≥100
Bend Elastic Module	ASTM C393/C 393 M-16	MPa	22045	≥20000
Acoustic Properties				
Sound absorption Factor	ISO 354:2003	-	0.046	-
Sound Transmission loss	ISO 717-1:2020	dB	24	-
Loss Factor	EN ISO 6721 Frequency range 100 - 3200 Hz	-	0.0088	-
Bending and Rigidity Properties				
Section Modulus W	DIN 53293-1982	cm3/m	1.82	-
Rigidity – Poisson's ratio	DIN 53293-1982	kNm2/m	0.34	-
Lacquering	FT-IR	-	Polyester	-

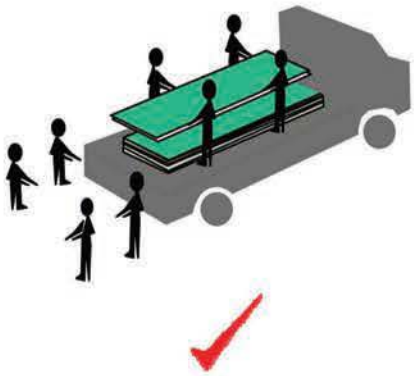
FR-B1-ACP- Fire Performance Properties				
ASTM E84 – 21a: Standard Test Method for Surface Burning Characteristics of Building Materials				
Test Method	*Parameter*		*Results*	
			Actual Result	*SASO-Requirement*
ASTM E84 – 21a	FLAME SPREAD INDEX (FSI)		10	FSI: 51 - 75
	SMOKE DEVELOPED INDEX (SDI)		30	SDI ≤ 450
BS EN 11925-2: 2020 - Ignitability of products subjected to direct impingement of flame.				
Test Method	*Parameter*	*No. of tests*	*Results*	
			Continuous parameter- mean (m)	*Compliance parameters*
BS EN 11925-2: 2020	Fs ≤ 150mm within 60 seconds	12	Fs ≤ 150mm	Compliant
	Ignition of filter paper		Nil	Compliant
BS EN 13823:2020 Reaction to Fire Tests for Building Products — Building Products excluding Floorings exposed to the Thermal Attack by a Single Burning Item				
Test Method	*Parameter*	*No. of tests*	*Results*	
			Continuous parameter- mean (m)	*Compliance parameters*
BS EN 13823:2020	FIGRA0.2MJ ≤ 120 W/s	3	16	Compliant
	THR600s ≤ 7.5 MJ	3	1.6	Compliant
	Lateral Flame Spread < Edge of specimen	3	< Edge of specimen	Compliant
	CRITERIA for subclass "s1"			
	SMOGRA, m^2/s^2	3	0	Compliant
	TSP600s ≤ 50 m^2	3	18	Compliant
	CRITERIA for subclass "d0"			
	Flaming droplets/Particles within 600s	3	Nil	Compliant
CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH BS EN 13501-1:2018				
Fire behavior	*Smoke Production*		*Flaming droplets*	
B	S	1	-	d	0
Reaction to fire classification: B – S1, d0				

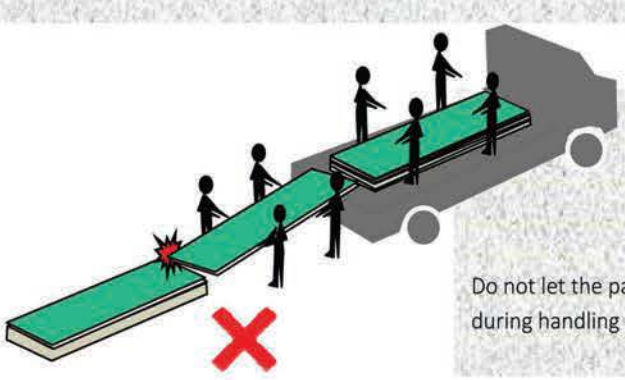
HANDLING, TRANSPORTATION AND STORAGE

Carefully unload the panels from the delivery truck. If unloading is done manually, lift two (2) sheets of panel in this suggested method where the protective films are both facing each side thereby protecting the inner surface and exposing the back surface of the panel.

The recommended number of persons lifting the standard length (5.80 m) is at least four (4) persons in the truck and four (4) persons near the truck for transporting the panels.

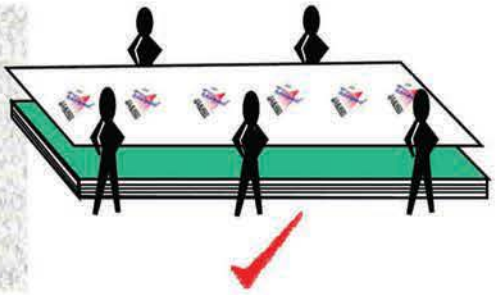
Whenever a forklift or crate is used for shorter length panels, ensure that it has the capability to carry the panels and pallet safely. The panel weight is about 5.5 kg/m^2.

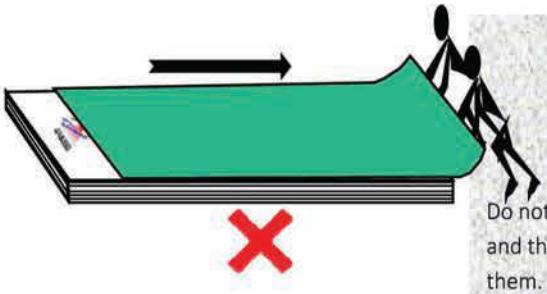




Do not let the panels hit hard objects during unloading from the truck or during handling as it may damage the side, surface and corners.

Lift the panel/s during transferring or handling.





Do not pull the panel/s as it may damage or scratch any part of its surface and the other panel especially if it has any foreign material between them.

TECHNOPANEL

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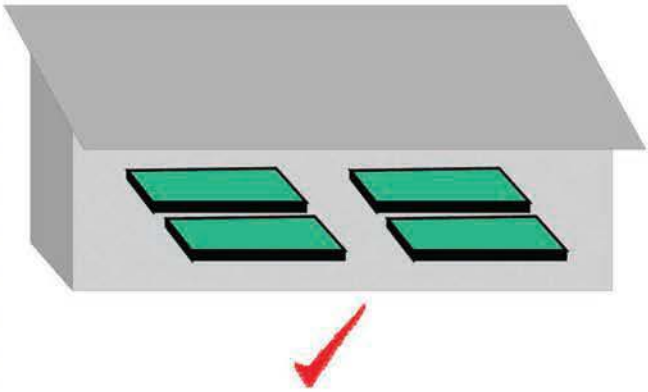
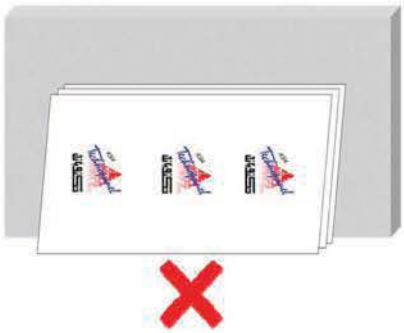
Keep the panels in a clean environment, normal room condition and at a flat horizontal position.

Arrange the topmost panel's backside surface in top position.

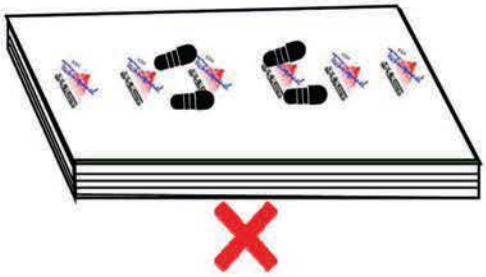
Storage should not be in a crowded or with high activity areas and must free from potential collision, sand, stones and materials that may cause damage or scratch.

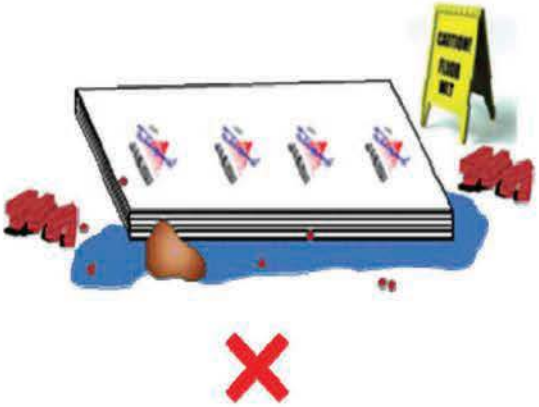




Do not store the panel in vertical or at an inclined position.

Do not step on the panel. It may cause scratches, deformation or damage on the decorative surface especially if the footwear has sharp objects underneath.





Do not store the panels with oil & dirt, sand or any wet environment. It may cause damage or stain if exposed under these conditions.

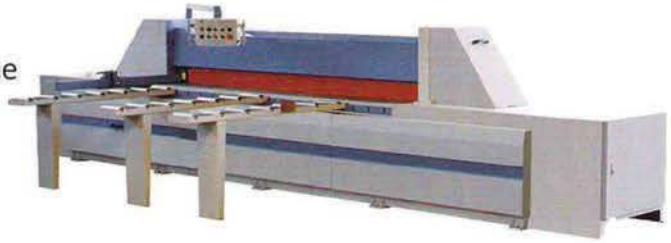
ACP FABRICATION TECHNIQUES AND EQUIPMENT

Cutting Method

Though customized sizes can be made according to necessity, it is also common to perform cutting to go well with the needs of the project. Sawing and routing panels are relatively easy processes that can be done with ordinary commercial metal and woodworking equipment.

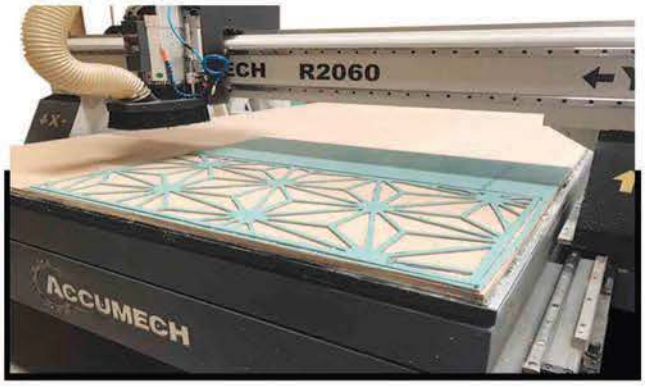
Typical cutting tools can be used for cutting with hard alloy blades. Saw blades and router bits are available through independent distributors who handle cutting tools. But for best cutting results, it is more suitable to use an automatic cutting machine.

Cutting Machine



CNC Grooving and Cutting Machine

This machine is able to grooving, cutting, perforating and 3Ddrawing on the ACP sheets.



CNC Grooving and Cutting Machine

TECHNOPANEL

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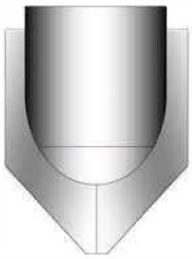
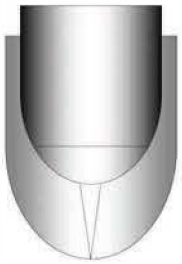
A grooving machine (specialized or portable) is used to fabricate panels. Choose the available cutters for grooving according to the design requirement that can either be circular/arc, V-shaped or straight groove cutters.

Note: In most applications, angle cutting is done after grooving to trim out the excess portion on the panel.

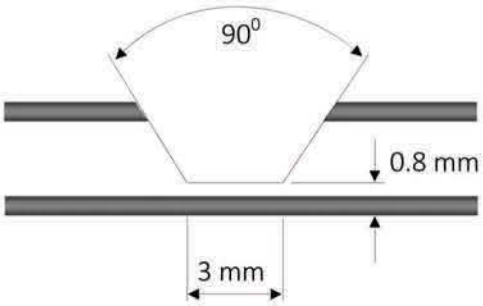
It is strongly recommended to settle with at least 0.3 mm thickness remaining polyethylene material during grooving.

Note: For FR-ACP, it is recommended at least 0.5 mm thickness of polyethylene.

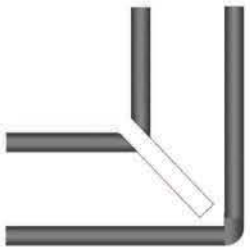
Types of Grooving / Router Blade:

V-shaped Grove	
Circular Grove	
Straight Grove	

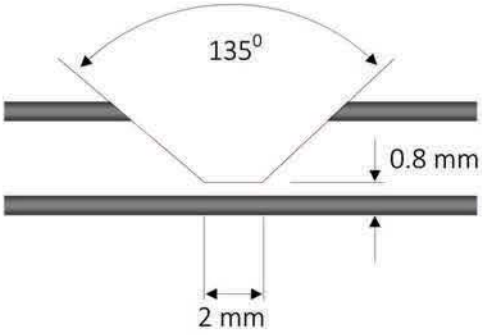
Grooving and Folding Techniques:



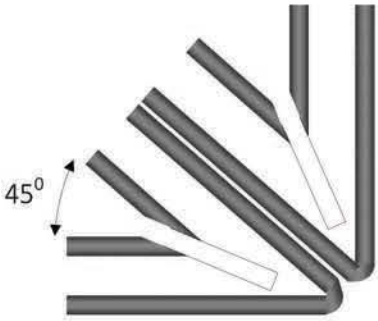
V-shaped 90⁰ Grove



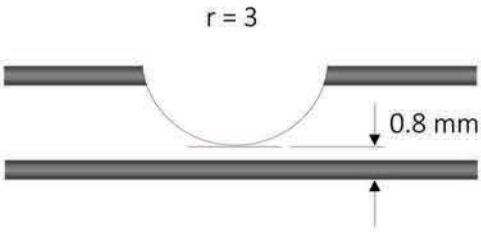
V-shaped 90⁰ Grove if folded up to 90⁰



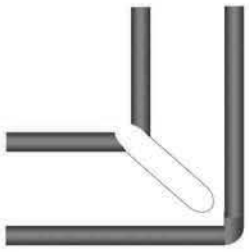
V-shaped 135⁰ Grove



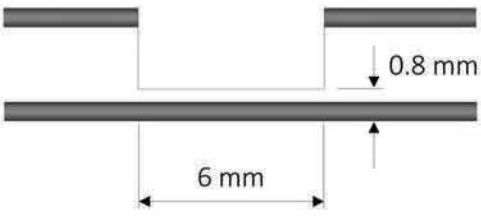
V-shaped 135⁰ Grove if folded up to 45⁰



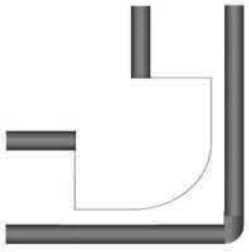
Circular Grove



Circular Grove if folded up to 90⁰



Straight Grove



Straight Grove if folded up to 90⁰

TECHNOPANEL

TECHNOPANEL

Cutting Machine

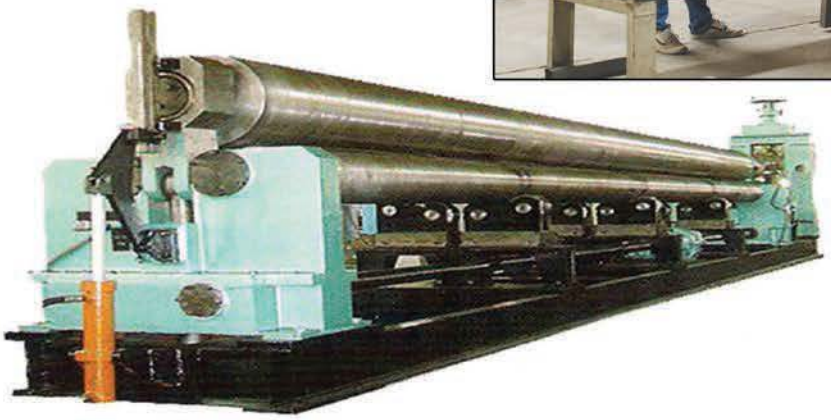
We understand the importance of customization in meeting the unique needs of our clients. That's why we offer the ability to produce customized sizes as per custom orders, as well as perform cutting to suit the architectural requirements of specific projects. Our cutting machine is designed to cut cladding with precision and accuracy, delivering clean, smooth cuts for a high-quality finish, with Production capacity of 200 m^2/hour.

CNC Machine

We are proud to offer a versatile range of services through our CNC machine. This machine is capable of performing cutting, grooving, and designing of cladding with maximum length of 6 meters and a width of 2 meters as per architectural designs, as well as creating intricate and detailed CNC art work. Our technology allows us to create precise cuts and grooves, ensuring a high-quality finish that meets the standards of our clients. With a production capacity of 100 m^2/hour, our CNC machine is capable of handling even the most demanding projects with ease. Whether you're looking to create complex designs or simple cuts for projects, and seeking a unique piece of wall art.

ACP-Bending Machine

Technopanel is a leading provider of advanced architectural solutions, equipped with state-of-the-art machinery to meet even the most complex design requirements. Our three roller bending machines are capable of forming and bending ACP into circular shapes with a minimum diameter of 25 cm and above, and a maximum width of 3.2 meters. With a production output of 200 square meters per hour, we can efficiently provide high-quality circular ACP panels to meet the demands of our clients. At Technopanel, we are committed to delivering excellence in every project we undertake.



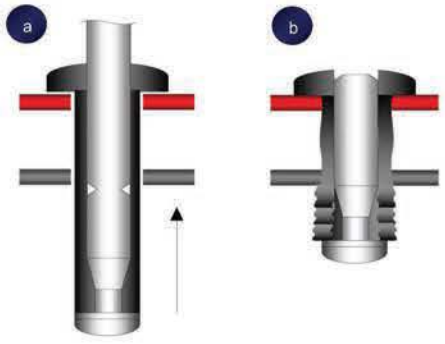
Three- Roller Bending Machine

Fastening

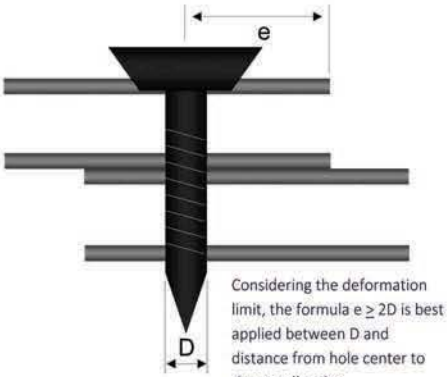
Fastening makes the structure more rigid enabling the edges to be fixed firmly. A variety of different fasteners is used to fabricate and install panels. Structural adequacy and selection of these fasteners is the responsibility of qualified engineers and in most instances where architectural panels are used, certified calculations will be required by the building official.

Rivets are often utilized to attach Aluminum clip angles and other structural or ornamental elements to panels. Please take note that some building code jurisdictions do not endorse the use of pop rivets for structural connections.

Screws are also used to perform many of the same applications as rivets. Stainless steel screws are industry standard and are appropriate to prevent corrosion.



Rivet



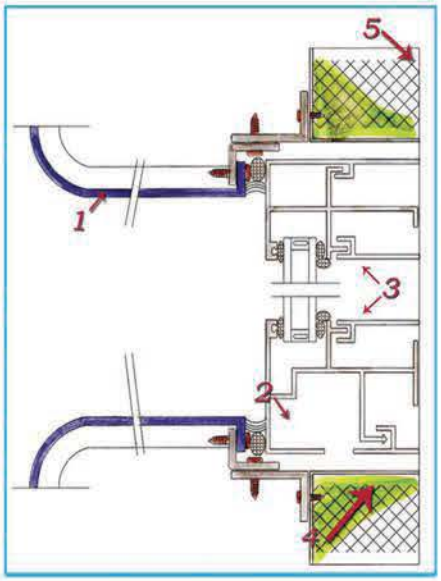
Screw

TECHNOPANEL

TECHNOPANEL

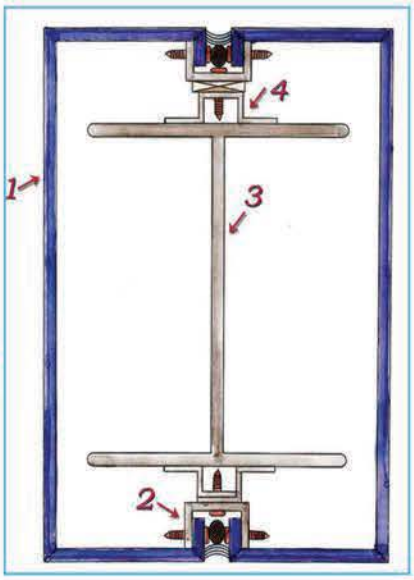
ALUMINIUM COMPOSITE PANEL

TECHNOPANEL



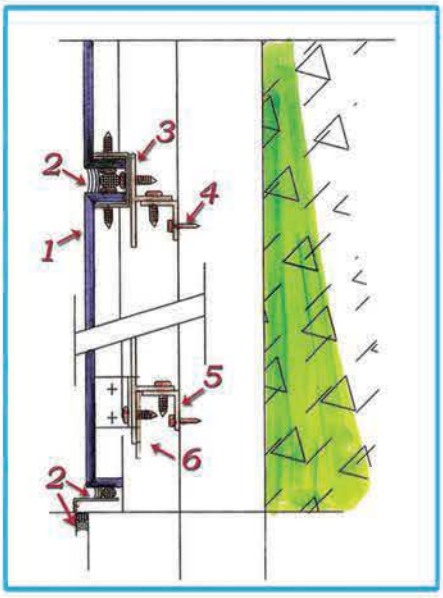
①

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



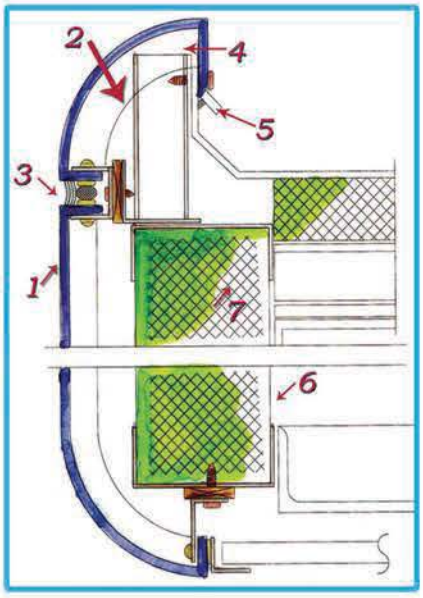
④

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



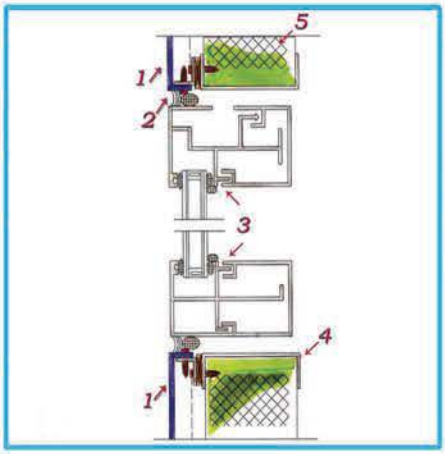
②

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



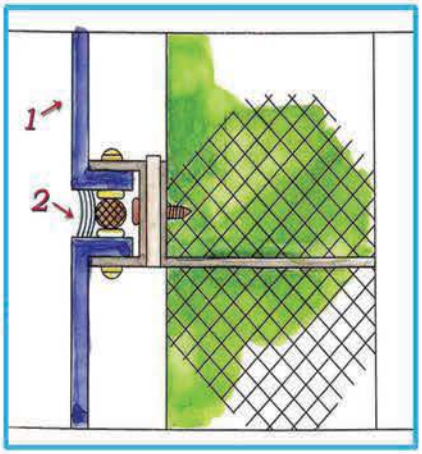
⑤

1- Technopanel Sheet
2- Camber Line
3- Gap Filler (Backing Rod + Silicon).
4- Self Taping Screw
5- Water Board
6- Framework
7- Instulating Material



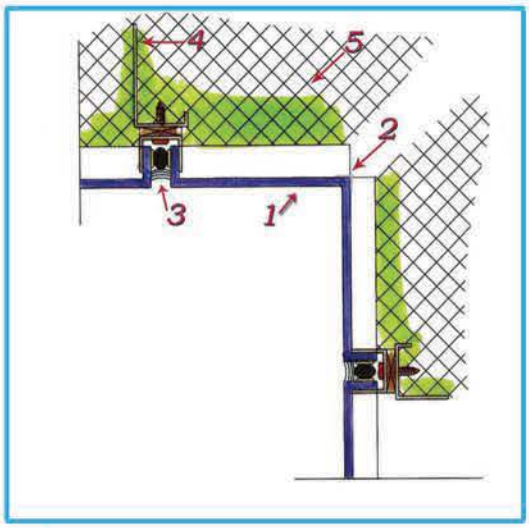
③

1- Technopanel Sheet
2- Gap Filler (Backing Rod + Silicon).
3- Securing Frame For Aluminum Window
4- Framework
5- Instulating Material



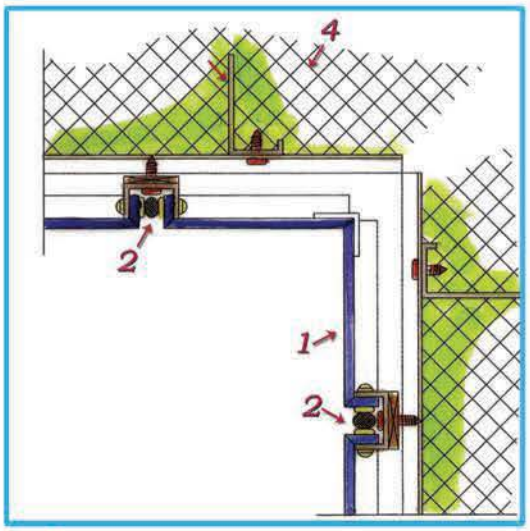
⑥

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



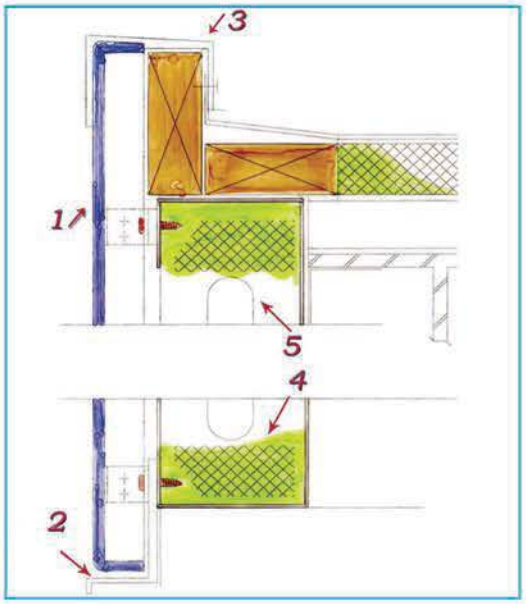
7

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



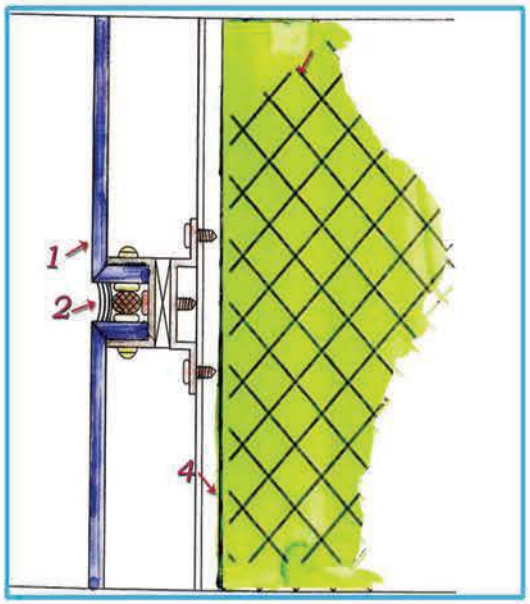
8

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



9

1- Technopanel Sheet
2- Gap Filler
3- Breakwater
4- Insulating Materials
5- Supporting frame



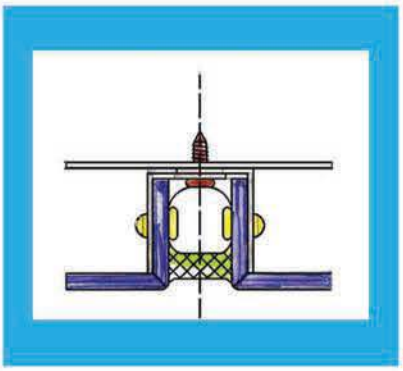
10

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

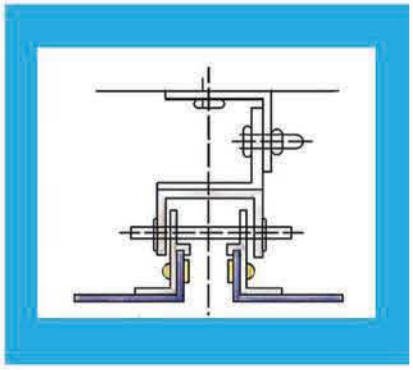
TECHNOPANEL

TECHNOPANEL

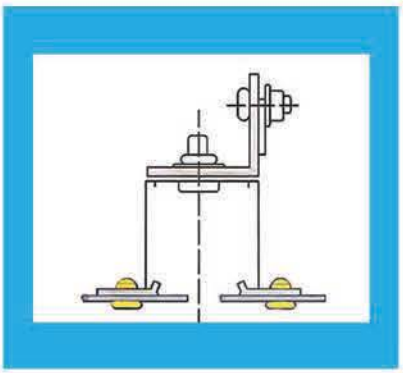
11



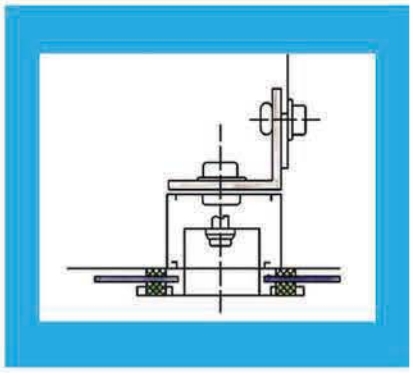
Screw Fastening



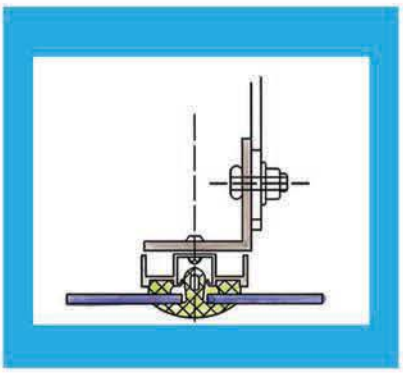
Fitting Part Suspending Fastening



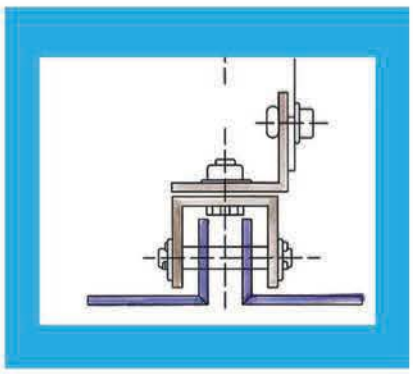
Fastener Fastening



Layerage Scres Fastening

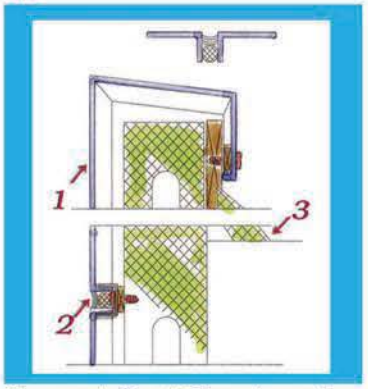


Layerage Fastening

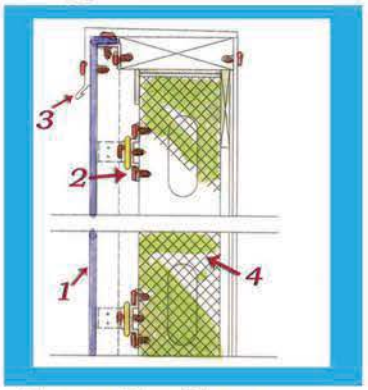


Suspending fastening

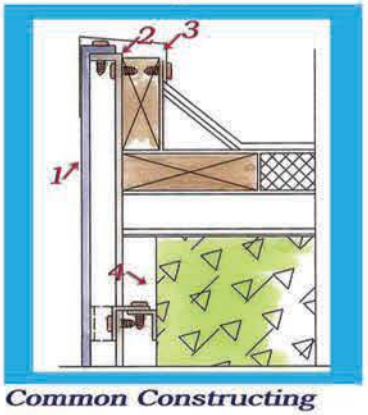
12



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

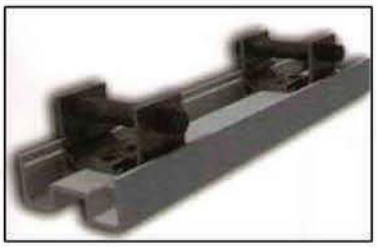


Supporting Frame Constructing Method
1-Technopanel Sheet
2-Framework
3-Breakwater
4-Insulating Material

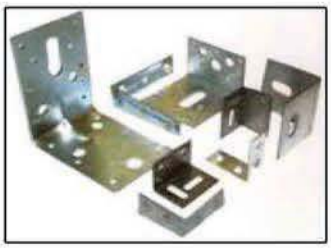


Common Constructing Method
1-Technopanel Sheet
2-Iron Angle
3-Breakwater
4-Adjustable Framework

ACCESSORIES FOR INSTALLATION



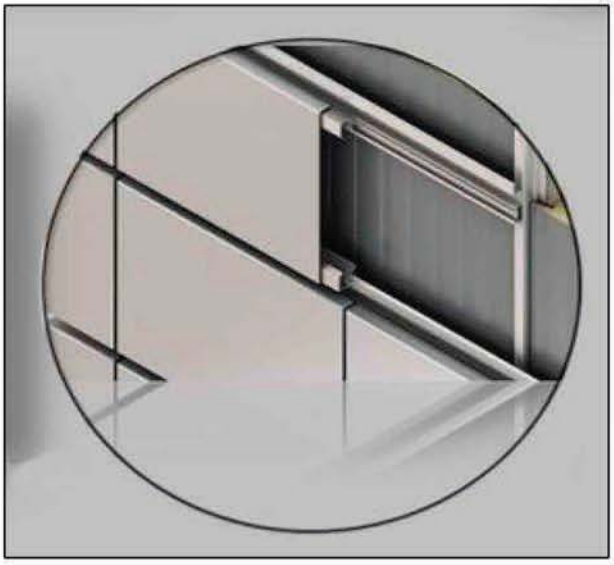
Aluminum Runner



GI Steel Angle

Aluminum / Steel Tubes

Riveter and Rivets



Screw

Screw Driver

Sealant

Hand Drill

TECHNOPANEL

TECHNOPANEL

FINISHING AND MAINTENANCE

Protective Film Removal

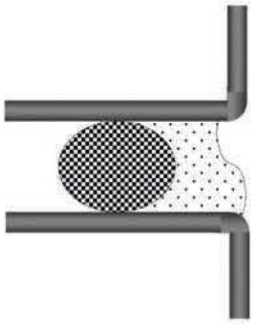
It is usual to remove the protective film after installation though 12 months warranty is provided as supplemental panel protection since the duration of certain projects may differ from one another.

Peeling-off the protective film is suggested to be done on each corner or substrate of the installed panel for a more convenient removal of the film.

Do not prolong the protective film removal beyond the warranty limit since it may cause adhesive retention and film degradation under varying environmental conditions.

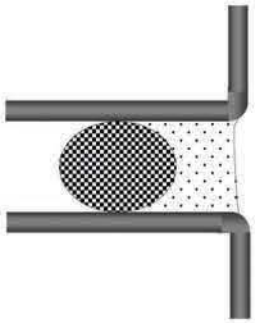
Sealant Finishing

During application of sealants in between panel partitions, it is recommended to follow as illustrated below:



Sealant – Not The Suitable Condition

This condition can cause the dirt to accumulate in between the hollow slots.



Sealant – The Suitable Condition

This condition is ideal to prevent dirt from accumulating in between slots.

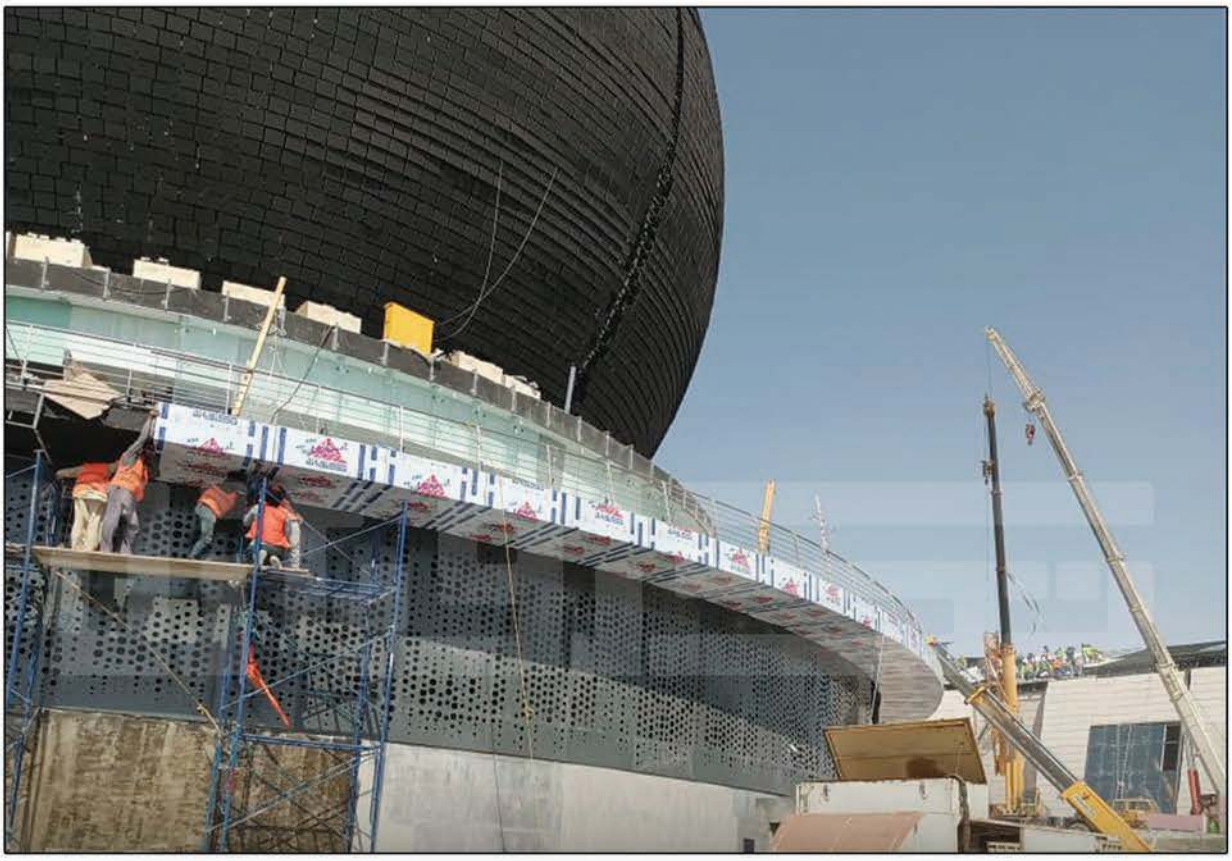
Cleaning and maintenance of ACP

It is important to keep the panel in best condition to maintain the color and glossiness throughout its lifespan.

a. Plain water is required to clean the surface of the panels.

b. Do not use strong agents such as acids, solvents and strong alkali. This can damage the panel surface.

c. Use a clean soft cloth for cleaning the surface. Prevent using cloth or material with abrasion that can cause scratches or damage on the coating.



Boulevard - Riyadh

Sabic Project

Empire Cinemas

Empire Cinemas - 2

Othaim Mall - Riyad

Saudi Red Crescent - Makah

Hadab Hotel Project

ATR Project

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

KUDU - Riyadh

Hardees - Jordan

King Fahd Road - Riyadh

Jodia Towers

KYNAR500 مطابقة MOTABAQAH ISO 9001 2018 REGISTERED PPG SGS intertek Total Quality. Assured. SASO UL

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

Yamamah Palace Hotel

Al Sarhan Hotel Apartments

Rajhi Bank

Villas - Dammam

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

Train Project

Riyadh Bank Project

Al Rabeea Towers

Administration Building - Riyadh

Granada Mall Theater
Exit 9 - Riyadh

Children Hospital - Al Taief

Owayed Al Brikan Project - Dhahret Laban

Al-Sadhan Mall - Riyadh

Al Basateen Compound Project

Dawadmy Project

Al Olaya Al Akaria - North Ring Road

Al Amaken Hotel - Riyadh

Al Safinah Restaurant - Alwashm

Extra - Eastern Ring Road - Riyadh

KSA Technopanel تكنوبانل

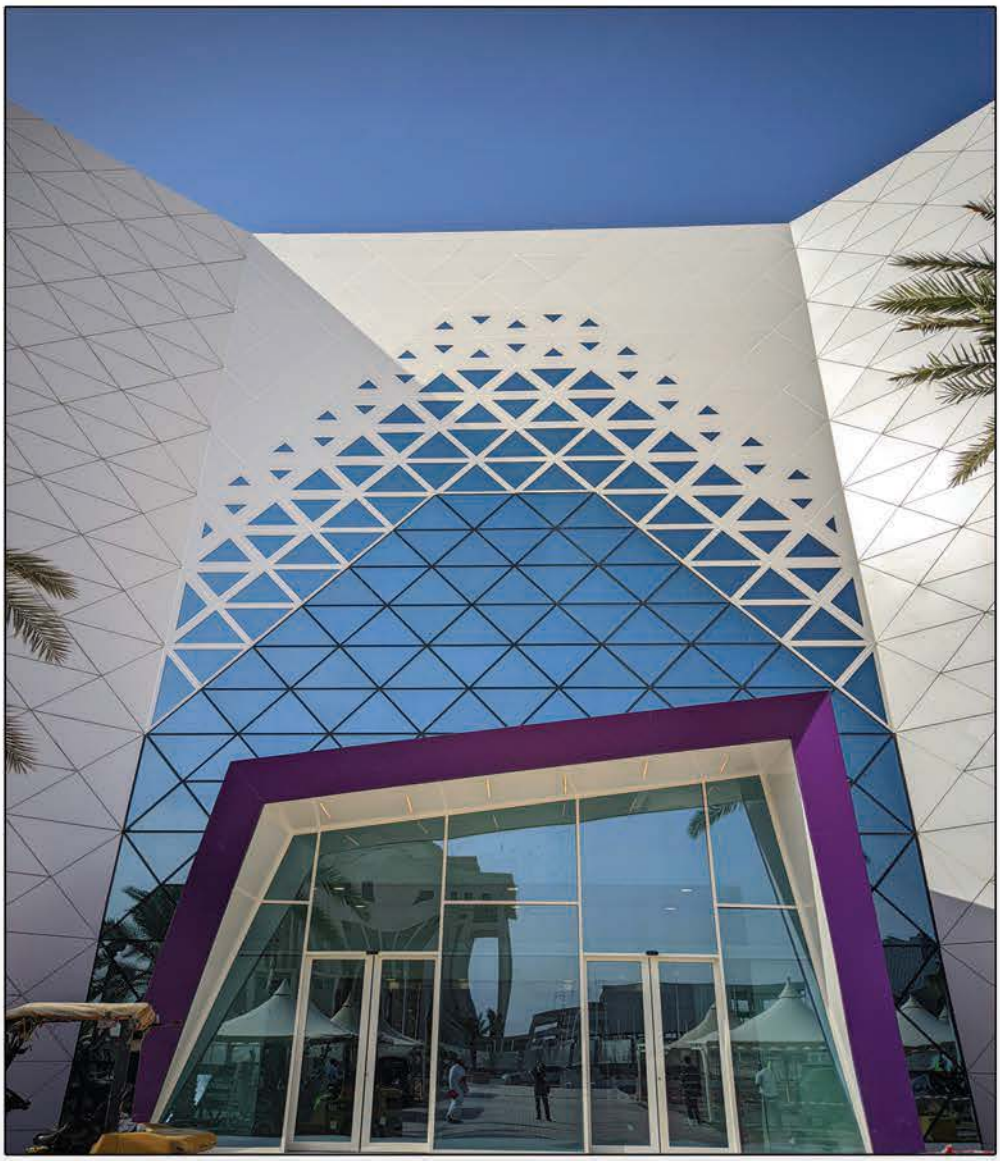
TECHNOPANEL ALUMINIUM COMPOSITE PANEL

Saudi Wildlife Authority

Raden Center - Olaya Road - Riyadh

KYNAR500 مطابقة MOTABAQAH ISO 9001 2018 REGISTERED PPG SGS intertek Total Quality. Assured. SASO UL

STC Project



Waqoodi Station

Tabook- Ramada Hotel

Ajlan& brothers Project

KSA

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

KYNAR500 | مطابقة MOTABAQAH | ISO 9001 2018 REGISTERED | PPG | SGS | intertek Total Quality. Assured. | SASO | UL

KSA Technopanel تكنوبانل

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

KYNAR500 مطابقة MOTABAQAH ISO 9001 2018 PPG SGS intertek Total Quality. Assured. SASO UL

المواصفات السعودية
Saudi Standards
SASO
الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

علامة الجودة
SASO
QUALITY MARK

شهادة ترخيص باستعمال علامة الجودة
License For Use of The Quality Mark

License Number: 20230464951 رقم الترخيص:

SASO certifies that it has granted the right to use (SASO) quality mark on the following products, after fulfilling the required requirements according to the related normative references:

تشهد الهيئة السعودية للمواصفات والمقاييس والجودة بأنها رخصت باستعمال علامة الجودة على المنتجات الموضحة أدناه بعد استيفاءها للمتطلبات اللازمة وفق المراجع القياسية الخاصة بها:

The Establishment:	شركه مصنع تقنيه الالواح	المنشأة:
The Establishment's Address:	Al Mashael, Riyadh 14325, Saudi Arabia	عنوان المنشآة:
Production Line Location:	KING ABDUL AZIZ ROAD, Malham 10342 KSA 5761	موقع خط الإنتاج:
Normative References:	SASO 2752 : 2019 اللائحة الفنية لمواد البناء – الجزء الثاني	المراجع القياسية:
The Trade Mark:	تكنوبانل	العلامة التجارية:
The Product:	الواح الألومنيوم المركبة للتكسيات الخارجية والتشطيبات الداخلية	المنتج: (التفاصيل المفتوح في الملحق)
Date of Granting:	10/04/2023	تاريخ المنح:
Date of Renwal:	-	تاريخ التجديد:
Date of Expiry:	10/04/2026	تاريخ الانتهاء:

مدير عام الإدارة العامة لمنح الشهادات
Director General of Certification Department

المهندس/ خالد بن محمد النملة
Eng. Khalid M. Alnamlah

الإدارة العامة لمنح الشهادات
SASO
الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

للتأكد من صحة هذه الشهادة يرجى زيارة موقعنا على الإنترنت. وأي كشط أو تغيير في هذه الشهادة يلغيها.
To verify this certification visit SASO website, and any changes or modification on this certificate will affect its validity.

CERTIFICATE OF COMPLIANCE

Certificate Number	R40168
Report Reference	R40168-2020-10-23
Date	2020-November-02
Issued to:	TECHNOPANEL MADAIN INDUSTRIAL 212 TO 217, NEW KHARJ ROAD, P.O BOX 10342, RIYADH 11433 Riyadh, KSA SA
This is to certify that representative samples of	SHEATHING MATERIALS "Technopanel – FR A2 Aluminium Composite Panel" 6mm thick. 6mm thick product to give coverage for 4mm and 5mm thickness. Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL723, Standard for Surface Burning Characteristics for Building Materials
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

غرفة الرياض
Riyadh Chamber

شهادة اشتراك
Membership Certificate

Membership No. :	167286	167286	رقم العضوية الموحد :
Date of Issue:	27/05/2006	2006/05/27	تاريخ الاصدار:
Membership Class :	First	الاولى	درجة العضوية :

Riyadh Chamber Certifies

تشهد الغرفة التجارية الصناعية بالرياض بأن

.TECHONPANEL FACTORY CO

شركة مصنع تقنية الالواح

Commercial Registration No.	1010219680	1010219680	مقيدة بالسجل التجاري / الترخيص رقم :
Certificate Expires on	21/10/2025	2025/10/21	ينتهي سريان هذه الشهادة في

- يلزم التحقق من الوثيقة عبر الرابط https://mybusiness.chamber.sa ، أو تطبيق (سند) للأجهزة المحمولة أو الرقم الموحد دون ادنى مسؤولية على الغرفة عن محتوى الوثيقة.
- تعد هذه الورقة من الوثائق الالكترونية لغرفة الرياض، ويمنع تعديلها اول محاولة العبث بها وتصبح لاغية حال محاولة تعديلها وتعرض صاحبها للملاحقة القانونية.

صورة

الخدمات الإلكترونية
E-SERVICES
E-Services Riyadh Chamber © الخدمات الإلكترونية لغرفة الرياض - بوابة أعمالي
920004565

صورة

intertek

شهادة مطابقة للمنتجات الخاضعة للوائح
Certificate of conformity for regulated products
مطابقة المواصفات والمقاييس السعودية للكنوبانل

الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

We (Intertek International LTD., Dubai Branch) office number (02615) are bearing full responsibility for the product described below is conforms to the Conformity assessment procedure Conduct the relevant technical regulations and standards which mentioned during this certificate.

Certificate Number	11305-026-19-037491	Issue Date	11/09/2019	Expire Date	11/09/2020
Certificate Type	Certificate of conformity for regulated products	Commercial Registration No	1010219680		
Establishment Address	الرياض صناعيه نمرة/الحائر				

Product and Manufacturer Data

Model type	الواح المنيوم للكسوة وعزل المباني (كلادينج)	Trade Mark	Technopanel
Product Name	Technopanel		
Product Description	aluminum fire retardant composite panels		
Country of origin	Saudi Arabia		
HS Code	761090900004		
Technical Regulation	Technical Regulation for Building Materials - Part II: Insulating and Cladding Materials for Buildings		
Manufacturer name	Technopanel		
Manufacturer Address			

Product test data

Report number	
Report Date	
Decision of conformity assessment	Product Approved

CB Organization Office Responsible manager signature

CB Organization Office Stamp

12/09/2019 09:04

Certificate Number	11305-026-19-037491	HS Code	761090900004
Product Name	Technopanel	Model type	الواح المنيوم للكسوة وعزل المباني (كلادينج)

Barcodes and serial numbers supplement

Barcode : [76069100]

رؤية VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

٢٤٧

السادة / شركة مصنع تقنية الألواح **المحترمين**

السلام عليكم ورحمة الله وبركاته.. وبعد..

إشارة الى خطابكم رقم 553 وتاريخ 1441/01/13هـ بخصوص الاستفسار عن صحة شهادة المطابقة الصادرة من جهة انترتيك رقم الشهادة (037491-19-026-11305) وتاريخ 2019/09/12.
نود الإفادة أن جهة انترتيك هي احدى الجهات المقبولة لدى الهيئة السعودية للمواصفات والمقاييس والجودة وأن الشهادة المذكورة اعلاه صحيحة وصادرة من خلال منصة سابر الالكترونية.

وتقبلوا أطيب تحياتي،،،

مدير إدارة قبول جهات تقويم المطابقة

نواف بن حسن الشهري

صورة

+966 11 252 9999 +966 11 452 0086 P.O.Box3437 الرياض Riyadh11471
Kingdom of Saudi Arabia المملكة العربية السعودية

www.saso.gov.sa

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التجارة والصناعة
إدارة تشجيع الصناعة

الرقم : ٢٦٠٣٣
التاريخ : ١٤ فرقعدة ١٤٢٩
المرفقات :

سعادة مدير عام إدارة المشاريع المحترم
المؤسسة العامة للتقاعد

السلام عليكم ورحمة الله وبركاته

أود الإحاطة أن **مصنع تقنية الالوح** مرخص له بموجب القرار الوزاري رقم (١٩٢٦/ص) وتاريخ ١٤٢٦/١١/٢٣ هـ .

وذلك لإنتاج **الواح المنيوم معزولة** ولدية الإمكانيات لتأمين احتياجاتكم من إنتاجه.

لذا نأمل الإيعاز للجهة المختصة لديكم بتأمين احتياجاتكم من منتجات الصناعة الوطنية عملاً بقرارات مجلس الوزراء الموقر بهذا الخصوص .

شاكراً دعمكم وتشجيعكم للصناعة الوطنية.

مع أطيب تحياتي وتقديري ؛؛؛؛؛

مدير إدارة تشجيع الصناعة بالنيابة

بسام بن عبد العزيز الهزاعي
١٤٢٩/١٢/١٩

صورة

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التجارة والصناعة
إدارة تشجيع الصناعة

الرقم : ٢٦٠٣٥
التاريخ : ١٤ فرقعدة ١٤٢٩
المرفقات :

سعادة مدير عام إدارة المشاريع المحترم
وزارة التعليم العالي

السلام عليكم ورحمة الله وبركاته

أود الإحاطة أن **مصنع تقنية الالوح** مرخص له بموجب القرار الوزاري رقم (١٩٢٦/ص) وتاريخ ١٤٢٦/١١/٢٣ هـ .

وذلك لإنتاج **الواح المنيوم معزولة** ولدية الإمكانيات لتأمين احتياجاتكم من إنتاجه.

لذا نأمل الإيعاز للجهة المختصة لديكم بتأمين احتياجاتكم من منتجات الصناعة الوطنية عملاً بقرارات مجلس الوزراء الموقر بهذا الخصوص .

- شاكراً دعمكم وتشجيعكم للصناعة الوطنية.

مع أطيب تحياتي وتقديري ؛؛؛؛؛

مدير إدارة تشجيع الصناعة بالنيابة

بسام بن عبد العزيز الهزاعي
١٤٢٩/١٢/١٩

صورة

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التجارة والصناعة
إدارة تشجيع الصناعة

الرقم : ٢٦٠٣٤
التاريخ : ١٤ / ٦ / ١٤٢٩
المرفقات :

سعادة مدير عام إدارة المشاريع المحترم
الهيئة العامة للتأمينات الاجتماعية

السلام عليكم ورحمة الله وبركاته

أود الإحاطة أن **مصنع تقنية الالوح** مرخص له بموجب القرار الوزاري رقم (١٩٢٦ ص) وتاريخ ١٤٢٦/١١/٢٣ هـ .

وذلك لإنتاج **الواح المنيوم معزولة** ولدية الإمكانيات لتأمين احتياجاتكم من إنتاجه.

لذا نأمل الإيعاز للجهة المختصة لديكم بتأمين احتياجاتكم من منتجات الصناعة الوطنية عملاً بقرارات مجلس الوزراء الموقر بهذا الخصوص .

شاكراً دعمكم وتشجيعكم للصناعة الوطنية.

مع أطيب تحياتي وتقديري ؛؛؛؛

مدير إدارة تشجيع الصناعة بالنيابة

بسام بن عبد العزيز الهزاعي

١٤٢٩ / ٦ / ١٩

صورة

المملكة العربية السعودية
وزارة المياه والكهرباء
مكتب الوزير (٢٧٤)

Kingdom of Saudi Arabia
Ministry of Water & Electricity
Minister's Office

سعادة وكيل الوزارة لشئون الكهرباء	وفقه الله
سعادة وكيل الوزارة لشئون المياه	وفقه الله
سعادة الرئيس التنفيذي لشركة المياه الوطنية	وفقه الله
سعادة المدير العام لإدارة الصرف الصحي	وفقه الله
سعادة المدير العام للمياه بمنطقة الرياض	وفقه الله
سعادة المدير العام للمياه بمنطقة مكة المكرمة المكلف	وفقه الله
سعادة المدير العام للمياه بمنطقة المدينة المنورة	وفقه الله
سعادة المدير العام للمياه بمنطقة القصيم	وفقه الله
سعادة المدير العام للمياه بالمنطقة الشرقية	وفقه الله
سعادة المدير العام للمياه بمنطقة عسير	وفقه الله
سعادة المدير العام للمياه بمنطقة تبوك	وفقه الله
سعادة المدير العام للمياه بمنطقة حائل	وفقه الله
سعادة المدير العام للمياه بمنطقة الحدود الشمالية	وفقه الله
سعادة المدير العام للمياه بمنطقة نجران	وفقه الله
سعادة المدير العام للمياه بمنطقة جازان	وفقه الله
سعادة المدير العام للمياه بمنطقة الباحة	وفقه الله
سعادة المدير العام للمياه بمنطقة الجوف	وفقه الله

السلام عليكم ورحمة الله وبركاته.

برفقه نسخة خطاب شركة مصنع تقنية الالواح (تكنو بانل) المؤرخ في ١٤٣٣/٣/٦هـ، المتضمن طلب اعتماد منتجات الشركة من الواح الالمنيوم المعزولة (Cladding) في مشاريع الوزارة ، وحيث أفادت شركة المياه الوطنية بالخطاب رقم (٣٣/HQ/٢٥٧٠)، وتاريخ ١٤٣٣/٤/٢٦هـ، ووكالة الوزارة لشئون الكهرباء بالخطاب رقم (١/٢٧٧٠) وتاريخ ١٤٣٣/٦/٢٨هـ، باعتماد منتجات الشركة من الواح الالمنيوم المعزولة المستخدمة في تكسية واجهات المباني الخارجية والداخلية.

آمل الإطلاع ، والتوجيه حيال اعتماد منتجات شركة مصنع تقنية الالواح (تكنو بانل)، ضمن الشركات المعتمدة في مشاريع الوزارة ، على أن يتم استخدام (Water Proof EPDM Rupper) في الفواصل بين الالواح بدلاً من (Backing rob and Silicon)، مع الأخذ في الاعتبار أن هذه المنتجات تعتبر مكملة للعزل الحراري وليست بديلاً عنه.

مع أطيب تحياتي ،،،

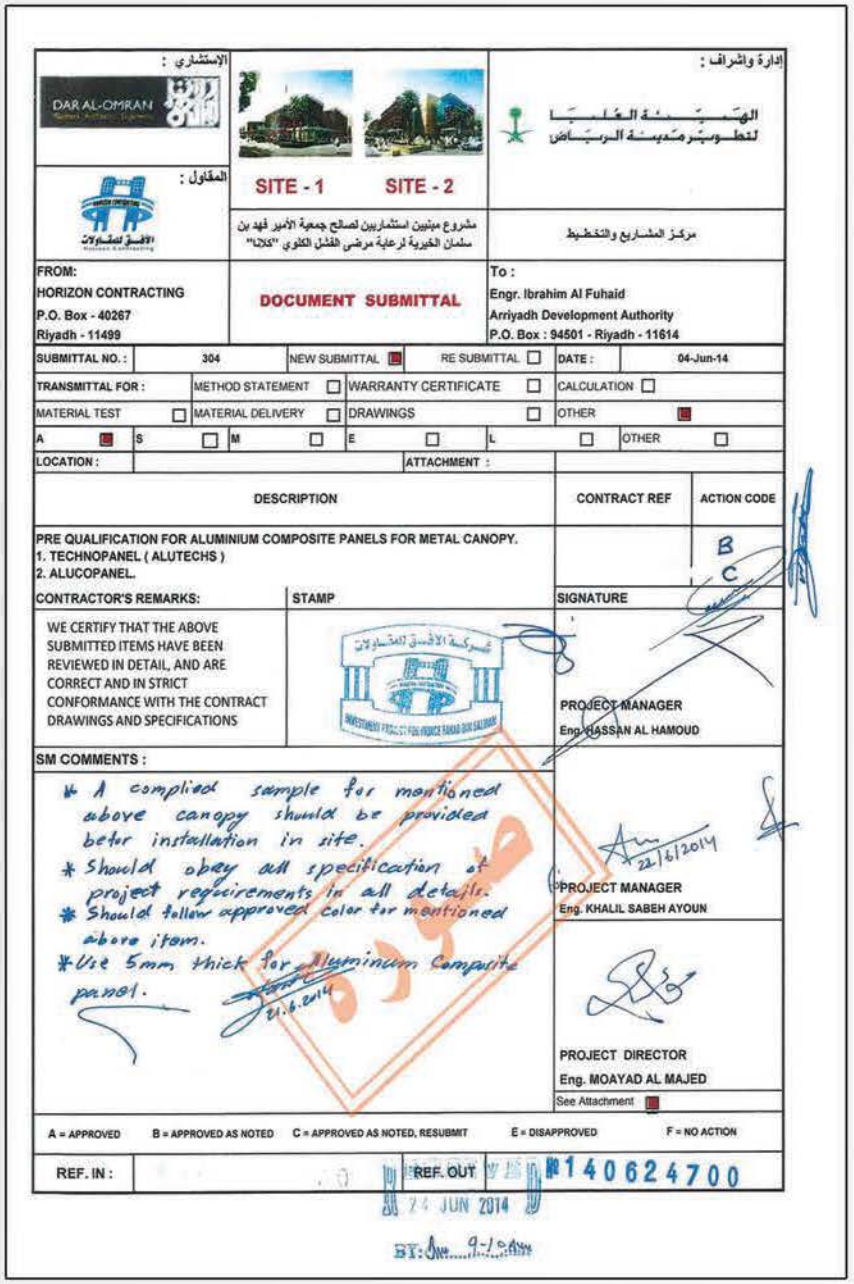
وزير المياه والكهرباء
عبدالله بن عبدالرحمن الحصين

صورة

نسخة لشركة مصنع تقنية الالواح.

الرقم : ٣١٥٣٨ التاريخ : ١ رجب ١٤٣٣ المشفوعات :

الرياض - طريق الملك فهد - الرياض ١١٢٣٣ - هاتف الإتصالات الإدارية : ٢٠٥٢٧٤٨ - فاكس : ٢٠٥٢٧٤٩
Riyadh - King Fahd Road - Riyadh 11233 - Communications Dept. Tel. : 2052748 - Fax : 2052749



إدارة وإشراف :

الهيئة العليا لتطوير مدينة الرياض

الإستشاري :

DAR AL-OMRAN

SITE - 1 SITE - 2

المقاول :

مشروع مبنيين استثماريين لصالح جمعية الأمير فهد بن سلمان الخيرية لرعاية مرضى الفشل الكلوي "كلانا"

مركز المشاريع والتخطيط

FROM:
HORIZON CONTRACTING
P.O. Box - 40267
Riyadh - 11499

DOCUMENT SUBMITTAL

To :
Engr. Ibrahim Al Fuhaid
Arriyadh Development Authority
P.O. Box : 94501 - Riyadh - 11614

SUBMITTAL NO. :	304	NEW SUBMITTAL ☒	RE SUBMITTAL ☐	DATE :	04-Jun-14
TRANSMITTAL FOR :	METHOD STATEMENT ☐	WARRANTY CERTIFICATE ☐		CALCULATION ☐	
MATERIAL TEST ☐	MATERIAL DELIVERY ☐	DRAWINGS ☐		OTHER ☒	
A ☒	S ☐	M ☐	E ☐	L ☐	OTHER ☐
LOCATION :		ATTACHMENT :			

DESCRIPTION	CONTRACT REF	ACTION CODE
PRE QUALIFICATION FOR ALUMINIUM COMPOSITE PANELS FOR METAL CANOPY. 1. TECHNOPANEL (ALUTECHS) 2. ALUCOPANEL.		B C

CONTRACTOR'S REMARKS:	STAMP	SIGNATURE
WE CERTIFY THAT THE ABOVE SUBMITTED ITEMS HAVE BEEN REVIEWED IN DETAIL, AND ARE CORRECT AND IN STRICT CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS	شركة الأفق للمقاولات	PROJECT MANAGER Eng. HASSAN AL HAMOUD

SM COMMENTS :

* A complied sample for mentioned above canopy should be provided befor installation in site.
* Should obey all specification of project requirements in all details.
* Should follow approved color for mentioned above item.
* Use 5mm thick for Aluminium Composite panel.

21.6.2014

PROJECT MANAGER
Eng. KHALIL SABEH AYOUN

PROJECT DIRECTOR
Eng. MOAYAD AL MAJED

See Attachment ☒

A = APPROVED B = APPROVED AS NOTED C = APPROVED AS NOTED, RESUBMIT E = DISAPPROVED F = NO ACTION

REF. IN : REF. OUT

140624700

24 JUN 2014

BY:

صورة

Kingdom of Saudi Arabia
Ministry of Health
General Directorate for Project
Supervision on Execution Department

المملكة العربية السعودية
وزارة الصحة

الوكيل المساعد للشؤون الهندسية
القيد: 395239
التاريخ: 1435-11-21هـ 2014-09-16م
مرفقات: ملف تأهيل

التاريخ / / ١٤هـ المشفوعات :

الموضوع : بشأن طلب تأهيل شركة مصنع تقنية الالواح (تكنوبانل)

السادة / شركة مصنع تقنية الالواح (تكنوبانل) المحترمين

ص.ب : ١٠٣٤٢ الرياض : ١١٤٣٣ ت : ٠١١/٢٤٤٧٧٥٥ فاكس : ٠١١/٢٤٢٩٠٤٠

السلام عليكم ورحمة اللّه وبركاته ... وبعد ...

إشارةً إلى خطابكم رقم (١٠١/M.GM/٢٠١٤) وتاريخ ١٤٣٥/١٠/٢٢هـ بخصوص طلبكم الموافقة على اعتماد وتأهيل منتجات مصنعكم من ألواح الالومونيوم المعزولة والتي تستخدم في تكسية الواجهات (الكلادنج) لتكونوا ضمن الموردين فى مشاريع الوزارة ,

نفيدكم بأنه بعد أن تمت دراسة الملف الخاص بشركتكم - يمكنكم تقديم منتجاتكم لمقاولي مشاريع الوزارة حال كانت مطابقة لمواصفات المشاريع بالوزارة .

مع أطيب تحياتي وتقديري ....

مدير إدارة الإشراف على التنفيذ

٢١ / ١١ / ١٤٣٥

المهندس / عبد المنعم بن محمد المحسن

صورة

الرمز البريدي (١١١٧٦) هاتف (٤٠٣٣٩٩٢) فاكس (٤٠٤٠٧٩٧) Riyadh (11176) Tel. (4033992) Fax (40407997)

مطابع وصحة الشرقية ١٥-٧-١٠-١

المملكة العربية السعودية
وزارة التربية والتعليم
وكالة الوزارة للمباني
الإدارة العامة للبحوث وضبط الجودة
إدارة اعتماد المواد

وزارة التربية والتعليم
إدارة البحوث وضبط الجودة
الرقم: ٣٤٥٣٧٧١٣
التاريخ: ١٤٣٤/٠٣/٢٢ هـ
المرفقات:

وزارة التربية والتعليم
Ministry of Education

الموضوع : موافقة استخدام منتجات
شركة تقنية الالواح (تكنوبانل)

المكرم / شركة تقنية الالواح (تكنوبانل)
ص ب ١٠٣٤٢ - الرياض ١١٤٣٣
السلام عليكم ورحمة الله وبركاته

إشارةً إلى خطابكم رقم ٣٤٥٣٧٧١٣ بتاريخ ٢٢/ ٣ /١٤٣٤ هـ بخصوص طلب استخدام منتجاتكم في مجال الواح الواجهات (كلادنج) لمشاريع الوزارة .

نفيدكم بأنه يمكنكم تقديم عيناتكم من خلال المقاولين المنفذين لمشاريع الوزارة بضمان عشر سنوات وفق صيغة الضمان المعتمد بالوزارة وتعتبر مسئوليتكم تضامنية مع المقاول المنفذ وسيتم إيقاف استخدام منتجاتكم تلقائياً حال وجود عيوب صناعة أو ملاحظات على المنتجات المذكورة أعلاه وسوف يتم اعادة تقييم المنتجات بعد عام من تاريخه .

والسلام عليكم ورحمة الله وبركاته

مدير عام البحوث وضبط الجودة
المهندس / يونس بن عمر البراك

صورة

وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture
المملكة العربية السعودية

الرقم: ١٤٣٨/٣٥/١١٦٠٦٨
التاريخ: ١٤٣٩-٠٢-١٨
المرفقات: بدون

الإدارة العامة للشئون الهندسية
١٠٠٠/١٣٠٠

الموضوع/ اعتماد منتجات الشركة

السادة/ شركة مصنع تقنية الألواح (تكنوبانل) المحترمين
ص.ب / ١٠٣٤٢ الرياض ١١٤٣٣ فاكس (٠٤٠٢٩٠٤٢٤١١٦٦+)
السلام عليكم ورحمة الله وبركاته وبعد ،،،،

إشارة لخطابكم رقم ١٤٣٨/٣٥/١١٦٠٦٨ وتاريخ ١٤٣٨/١٢/٢٢هـ بخصوص اعتماد منتجاتكم ألواح الألومنيوم المعزولة (الكلادينج) ،وإلى الزيارة التي تمت لمصنعكم بمدينة الرياض وذلك بتاريخ ١٤٣٩/١/٢٠هـ للاطلاع على منتجات المصنع وطرق ضبط الجودة ومواصفات المواد الأولية ومراحل التصنيع المختلفة حتى المنتج النهائي .

نفيدكم بأنه لأمانع من اعتماد منتجاتكم عن طريق المقاولين المنفذين لمشاريع الوزارة لكونهم المعنيين بتقديم المواد للاعتماد وطبقاً للمواصفات الفنية لمشاريع الوزارة والمواصفات القياسية السعودية مع الاستمرار بمراقبة وضبط الجودة بمنتجاتكم .

ولكم أطيب تحياتي ،،،،

مدير عام الإدارة العامة للشئون الهندسية
م. كنعان بن عيسى الكنعان

صورة

طلب الموافقة لاعتماد مواد
Request For Material Approval

مشروع إنشاء واحات الملك سلمان للعلوم بحديقة الأمير فهد الفرحان بالملز
الإستشاري : شركة الاتحاد الهندسي - السعودية - خطيب وعلمي
المقاول : شركة مجموعة المرشد للمقاولات

المرشد للمقاولات ALMARSHAD CONTRACTING

أمانة منطقة الرياض

رقم العقد	(٥٥) بتاريخ ١٤٣١/٢/١١ هـ
رقم التقديم Submit NO	١
تاريخ التقديم Date	

طلب جديد New ■ — إعادة تقديم Resu □

المرفقات Attach: عينة تغطية الألمنيوم لقبة المسرح والقوس

رقم البند Item No	٥٠٦ ، ٥٠٥
مكان الاستخدام Location	قبة المسرح والقوس
الكمية Quantity	حسب المرفق

مواصفات البند حسب العقد Spec. As Per Contract: حسب المرفق

بيانات الوكيل Agent Data

Agent	تكنولوجيا الألمنيوم للصناعات المعدنية	الوكيل
P.O.BOX		ص.ب
Tel.	011- 4108899	هاتف
Fax		فاكس
Add.		العنوان

بيانات المصنع Factory Data

Factory	شركة مصنع تقنية الألواح (تكنوبانل)	المصنع
P.O.Box		ص.ب
Tel.	011 - 2447755	هاتف
Fax		فاكس
Add.		العنوان

توقيع وختم المقاول Contractor's Remarks & Signature
الاسم : المهندس / خالد بريكة — التوقيع : .... — التاريخ : .... — الختم : ....

ملاحظات وتوصيات الاستشاري Notes & Recommendations Of Consultant
□ التوصية بالموافقة — ☑ التوصية بالموافقة مع ملاحظات — □ إعادة التقديم — □ مرفوض

لا مانع من اعتماد المورد شركة تكنوبانل.
مراعاة المواصفات (بالسماكات).
تقديم لوحة درجات الألوان للمعاينة واعتماد.
قبة المسرح ألواح مصمتة - ألواح القوس مخرم.
تقديم الشهادات والضمانات [مقاومة الحريق - عدم تغير اللون ...] للمنتج ACP

الاسم : .... — التوقيع : .... — التاريخ : .... — الختم : ....

RH1417

ملاحظات وتوصيات المالك Notes & Recommendations Of Owner
□ التوصية بالموافقة — □ التوصية بالموافقة مع ملاحظات — □ إعادة التقديم — □ مرفوض

يعتمد ، المالك

RECEIVED 05 MAY 2019

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التجارة والصناعة
إدارة تشجيع الصناعة

الرقم : ٢٦٠٢٦
التاريخ : ٢٩/١٢/١٤٢٩
المرفقات : ....

سعادة مدير عام إدارة المناقصات والمشتريات المحترم
وزارة الصحة

السلام عليكم ورحمة الله وبركاته

أود الإحاطة أن **مصنع تقنية الالوح** مرخص له بموجب القرار الوزاري رقم (١٩٢٦/ص) وتاريخ ١٤٢٦/١١/٢٣ هـ .

وذلك لإنتاج **الواح المنيوم معزولة** ولدية الإمكانيات لتأمين احتياجاتكم من إنتاجه.

لذا نأمل الإيعاز للجهة المختصة لديكم بتأمين احتياجاتكم من منتجات الصناعة الوطنية عملاً بقرارات مجلس الوزراء الموقر بهذا الخصوص .

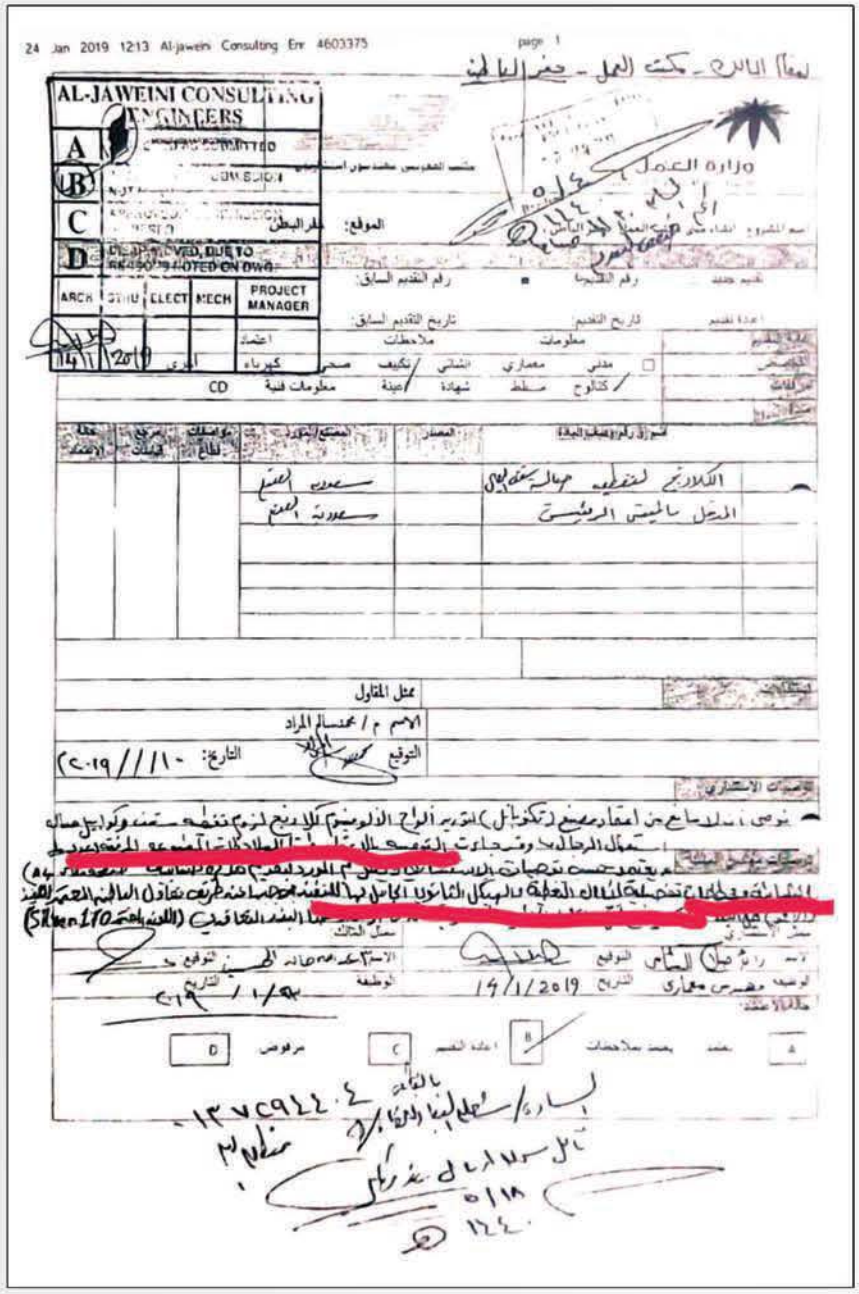
شاكراً دعمكم وتشجيعكم للصناعة الوطنية.

مع أطيب تحياتي وتقديري ؛؛؛؛؛

مدير إدارة تشجيع الصناعة بالنيابة

بسام بن عبد العزيز الهزاعي
١٤٢٩/١٢/١٩

صورة



24 Jan 2019 12:13 Al-jaweini Consulting Enr 4603375 page 1

AL-JAWEINI CONSULTING ENGINEERS

A SUBMITTED

B NOT ACCEPTED

C

D REJECTED, DUE TO RE-SUBMITTED ON DWG.

ARCH | STRU | ELECT | MECH | PROJECT MANAGER

14/1/2019

CD

19/1/2019

Arch. Material Submittal Form

Received by Consultant

Project Name	B&P Sulay Project	Project No	1888
Contractor	Rafic A.Kreidie Engineers & Contractor	Project Location	Sulay Riyadh
Contract No.		Shop Drawing Submittal No.	AM-025
To The Engineer	ACES	Date	17-10-2019
Shop Drawing No.		Contract Drawing Ref. No.	
Drawing Title	TECHNOPANEL –fire resistant Aluminum composite panel – materials and color – dat sheet and samples provided		
Category	☒ Architectural ☐ Mechanical ☐ Structural ☐ Electrical ☐ As Built ☐ Builder's Work ☐ Other (specify)		

The Contractor certifies that this submittal has been verified and coordinated by all related disciplines and relevant subcontractors

Eng. Nidal Mouamar — Signature — 17-10-2019

Name — Signature — Date

Contractor's Comments

ACES Consultant / Engineer comments

- TECHNOPANEL as a supplier for fire resistant aluminum composite panel is approved
- must submit mok up

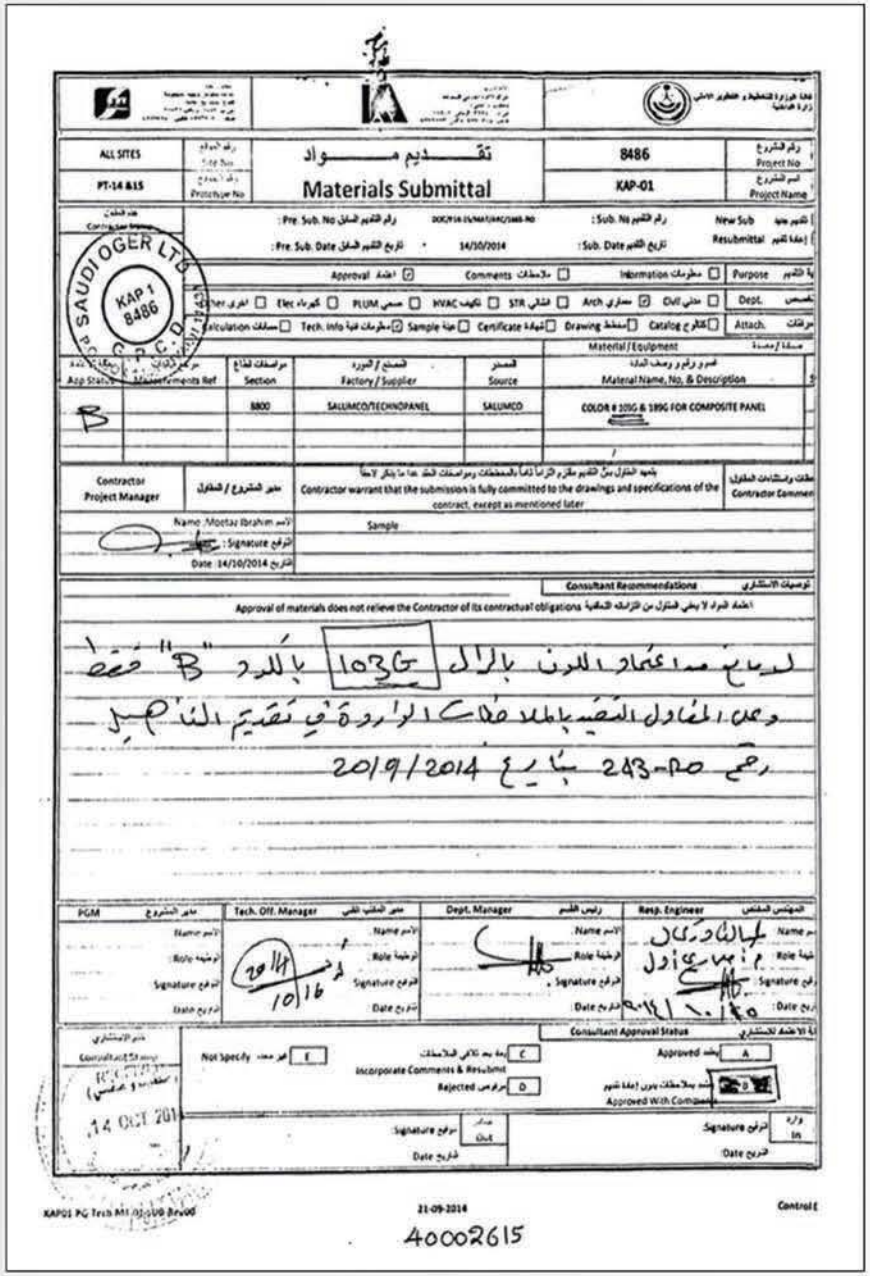
Status Code	☐ 1 - Approved ☒ 2 – Approved With Comments	☐ 3 - Not Approved. Revise & Re-submit ☐ 4 – Rejected As Comments	
Consultant PM Signature	Eng.Hassan Al Mawaldi	Date	24-10-2019
		Specialist Signature	

A) - Works shall only proceed when action code is (1) or (2)
B) - Action code (3) shall be Resubmitted
C) - Review does not relieve the Contractor from his responsibility of compliance with all requirements of the project contract and specifications.

Cc : Contractor For Compliance Cc : Client For Info Cc : ACES For Record

Received By Contractor		Date	

Project :
Body & Paint Workshop
Sulay , Riyadh
for: Mohamed Yousuf Naghi Motors Co.
Arabian Consulting Engineering Services
P.O.Box 146 Riyadh 11411, Tel: 011/4643538



ALL SITES	تقديم مواد Materials Submittal	8486	رقم المشروع Project No
PT-14 & LS		KAP-01	اسم المشروع Project Name

رقم التقديم السابق: Pre. Sub. No
تاريخ التقديم السابق: Pre. Sub. Date: 14/10/2014
رقم التقديم: Sub. No
تاريخ التقديم: Sub. Date
New Sub / Resubmittal
Purpose: Information / Comments / Approval
Dept.: Civil / Arch / STR / HVAC / PLUM / Elec / Other
Attach.: Catalog / Drawing / Certificate / Sample / Tech. Info / Calculation

App Status	Submittals Ref	Section	Factory / Supplier	Source	Material Name, No. & Description
B		8800	SALUMCO/TECHNOPANEL	SALUMCO	COLOR # 105G & 189G FOR COMPOSITE PANEL

Contractor Project Manager
Contractor warrant that the submission is fully committed to the drawings and specifications of the contract, except as mentioned later
Name: Mostaz Ibrahim
Date: 14/10/2014
Sample

Consultant Recommendations
Approval of materials does not relieve the Contractor of its contractual obligations

لديكم معتمد اللون بالرال 105G بالرد "B" فقط
وعلى المقاول التقيد بالملاحظات الواردة في تقديم التقديم
رقمي 243-PD بتاريخ 2014/9/20

PGM	Tech. Off. Manager	Dept. Manager	Resp. Engineer
Name / Role / Signature / Date	Name / Role / Signature / Date	Name / Role / Signature / Date	Name / Role / Signature / Date

Consultant Approval Status
A Approved
B Approved With Comments
C Incorporate Comments & Resubmit
D Rejected
E Not Specify

14 OCT 2014

Signature / Date (In / Out)

21-09-2014
40002615
Control

KAP01 PG Tech Mtl Submittal Revised

١٤٣٩/٨/١٦
١٦١٣٦

الهيئة العامة للسياحة والتراث الوطني
Saudi Commission for Tourism & National Heritage

الموضوع: تأهيل شركة تكنوبانل لدى الهيئة.

السادة/ شركة مصنع الألواح تكنوبانل **الموقرين**

السلام عليكم ورحمة الله وبركاته

إشارة إلى كتابكم الوارد للهيئة برقم (١٧٠٤٤) وتاريخ ١٤٣٨/١١/٢٩هـ، بشأن تطلبكم اعتماد منتجاتكم من الألواح المعزولة ضمن الموردين المعتمدين لدى الهيئة.

عليه، وبناءً على دراسة ملف منتجاتكم نحيطكم بأنه لا مانع من اعتماده وتقديمه لمقاولي مشاريع الهيئة حال مطابقتها لمواصفات وشروط المشروع المقدم عليه.

ولكم تحياتنا،،

مدير إدارة
الإشراف وتنفيذ المباني الحديثة

م. هاني بن سعيد ريجان

ص.ب ٦٦٦٨٠، الرياض ١١٥٨٦، المملكة العربية السعودية، هاتف ٨٨٤٤٠٠٠ ١١ ٩٦٦+ فاكس ٨٨٤٤٠٠٠ ١١ ٩٦٦+
P O Box 66680, Riyadh 11586, Kingdom of Saudi Arabia. T: +966 11 8808855 F: +966 11 880 8844
info@scth.gov.sa www.scth.gov.sa

TECHNICAL APPROVAL FORM - RESPONSE

Project: Community Support Facilities
Project Number: BI 10-77801

Technical Approval Reference: 007-020-1 Aluminum Cladding For Canopy (Rev.1).

Revised Date: Revision:
Page 1 of 1
Submittal Received: August 28, 2019

Package:
PMT ref No.
Contractor:

SUBMISSION 1: X DATE: 5-Sep-19

SELECT AS APPROPRIATE: Approved with conditions

THESE DOCUMENTS HAVE BEEN REVIEWED FOR GENERAL CONFORMANCE WITH THE CONTRACT. SUCH REVIEW DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES UNDER THE TERMS OF THE CONTRACT NOR AUTHORIZE ADDITIONAL COMPENSATION.

Department/Reviewer: CSPD
Response/Comment:

Comments are as follows:
1. Material identification should be stenciled on the back of the panel, not a sticky label.
2. All the IBC Code issues (2009 IBC, SECTION 1401,GENERAL) raised by LPD (David Leiker) in his e mail dated July 7th must be clearly addressed.
3. Additional Fire Test Certificates in the process of being procured by Technopanel at the moment should be forwarded to CSPD when available.
4. Written commitment from Technopanel & Contractor that Technopanel will assign trained staff to monitor the fabricators factory and site installation procedures.
5. Provide copy of manufacturers recommended fixing details.
6. Sample mock-up canopy complete with folds and fixation details (similar to what was provided by Al Khonaini for the Package 7 canopies) will also need to be provided.
Nothing Follows

Signed: Oliver Quinn Date: Thursday, September 05, 2019

Distribution: Lead Engineer: Oliver Quinn

A.S.ALSAYED & PARTNERS CONTRACTING CO. LTD

REQUEST FOR TECHNICAL APPROVAL

ASS-2155

TO: Name: Mr. Yousif A. Ali
Position: Project Manager
Department: Community Project Dept.
Location: Al-Khobar, KSA

ATTN.: Name: Mr. Waleed Safarji
Position: Sr. Project Engineer

FROM: Company: A.S.ALSAYED & PARTNERS CONTRACTING CO LTD
Address:
Tel./Fax No.:
E-mail: ljamal@ alsayedgroup.com

Project Title: COMMUNITY SUPPORT FACILITIES PKG 3
Location: DHAHRAN, KSA
Contract No.: 6600039701
10-77801-0001

MATERIAL DESCRIPTION
RTA FOR: ALUMINUM CLADDING FOR CANOPY
ALS-RTA-007-020 REV 01

SA ENGINEERING STANDARDS: N/A
SA ENGINEERING PROCEDURES: N/A
SPECIFICATION: SK-P30007

SUBMITTAL CODE

A	V	ARCHITECTURAL
C		CIVIL
S		STRUCTURAL
M		PIPING/MECHANICAL
E		ELECTRICAL, HVAC
I		INSTRUMENTATION
O		Others

SA MATERIALS SPECIFICATION SYSTEM: NA

NEW SUBMITTAL	RESUBMITTAL	REF. SUBMITTAL NO.	Rev. No.	SA DUMMY P.O. NO.	FORM SA-175	NMR FORM	INSPECTION LEVEL
	X	ALS-RTA-007-020	1	NA	NA	NA	"NON INSPECTABLE"

Sl #	Material Description	9COM CCC	MANUFACTURER NAME Manufacturers	VENDORS NAME Saudi Aramco Vendor ID:	(FOR SAUDI ARAMCO USE ONLY) REVIEW / COMMENT / APPROVAL / ACTION
1	ALUMINUM CLADDING FOR CANOPY Technopanel FR B1 TO BE USED FOR COMMUNITY & RECREATION BUILDING CANOPY SAMPLE AT PROJECT SHOWROOM	6800000486	PRISMA METAL INDUSTRY LIMITED LIABILITY COMPANY ID# 10046796	PRISMA METAL INDUSTRY LIMITED LIABILITY COMPANY ID# 10046796	See attached vesponse from proponent. ☐ NO OBJECTION ☑ NO OBJECTION AS NOTED ☐ CORRECT & RESUBMIT ☐ REJECTED Approval is only for general conformance with the contract documents. Such review does not relieve the CONTRACTOR for its responsibility under the terms of the CONTRACT nor authorized additional compensation

OCEPD-I / SAPMT RECEIVED 27 AUG 2019 Time:

Reviewed by:	Reviewed by:	Approved by:	Approved by:	Approved by: (SAPMT)
Signature	Signature	Signature	Signature	Signature
Architecture Engineer	Procurement Manager	Procurement Manager	Project Manager	Sr. Project Engineer
Name: Hosamaldin Hosny Saleh Alborhy Date: 26/08/2019	Name: Mar[illegible]kam Dawam Boles Date: 08/27/2019	Name: Jamal Mahmoud Date: 26/8/2019	Name: Sameh Elsayed Elsayed Date:	Name: Waleed Safarji Date: 9/11/19

NEOM نيوم

AECOM

Material Submittal Form
(Complete All Fields)

Contractor	MOBCO Civil Construction	Material Submittal No.	14-662000-4800000322-MOB-ARC-MAT-000012
NEOM Contract No.	4800000322/000	Date	22-06-2022
Material Description (One item/ system per form)	Metal Composite Material Wall Panels –Cube Metal Industries	Area of Application (Mark on Drawings)	CAR MAINTENANCE, CAR WASHING, TRUCK MAINTENANCE, TRUCK WASHING.
ACONEX Reference of Drawing with Revision			
Specification Reference	SECTION 074213.23 METAL COMPOSITE MATERIAL WALL PANELS	Applicable Code / Standard	
Listed in NEOM Mandatory List	☐ Yes ☐ No	Locally Manufactured (Identify Country of Origin if imported, with justification)	☐ Yes ☐ No
Contractor's Representative	MOBCO Civil Construction	Signature	

Discipline:

☒ Architectural	☐ Civil / Structure	☐ Interior Design	☐ Landscape	☐ MEP/ HVAC
☐ Wet Services	☐ Transportation	☐ Sustainability	☐ Mechanical	☐ Electrical
☐ Geotechnical	☐ Traffic	☐ Fire Protection	☐ Telecom, ICT & ELV	☐ Others

Manufacturer/Supplier

Company Name	TECHNOPANEL / CUBE METAL INDUSTRIES		
Address	P.O.Box 17851 Jeddah 21494, Saudi Arabia	Other details	
Local agent	P.O.Box 10342 Riyadh 11433, Saudi Arabia		
Scheduled Date of Delivery on Site	As agreed	Delivery Duration (Long Lead/ Short Lead)	Long Lead

Checklist for Attachments (as applicable):

☐ Index & Separators/ Fliers	☐ Drawings / Specification	☐ Specification Compliance Sheet
☒ Product Data	☐ Design Mixes (Concrete / Asphalt / JMF)	☐ Mill Certificates
☒ Test Reports	☐ Compliance Certificates	☐ Warranties
☒ Prequalification Approval reference	☐ Source Quality Control Reports	☐ Certificates & Accreditations
☐ LEED Submittals	☐ Welding Certificates	☒ Safety Data Sheet
☒ Previous Client Approvals	☒ Completed Projects (Similar in Nature)	☐ Delegated Design Submittals
☐ Samples	☐ Mockups Record/ Data	☐ Maintenance Data

NEOM

Document history

Revision code	Description of changes	Purpose of issue	Date
01	First Issue	For Approval	22-06-2022

Document approval

	Prepared by	Reviewed by	Approved by
Name	Abdul Qadir	Abdelaziz Abdellatif	Ahmed Adil
Job Title	QC Manager	Tech Manager	Project Manager

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

KSA Technopanel تكنوبانل

شـركـة مـصـنـع تـقـنـيـة الألـواح
Panels Technology Factory Co.

شهادة ضمان

منتج مقاوم للحريق فئة B1

أسـم المركـب و مسـتلم المـواد:
أســم المشـــروع:
مالـــك المشـــروع:
النـــــوع:
المـــوقـــع:

تشـهد إدارة شـركة مصنع تقنيـة الألـواح (تكنوبانـل) بأننـا نضـمن المـواد المصـنعة بمصـنعنا طبقـا للمواصـفات القياسـية السـعودية رقـم 2752/2008 مـن حيـث تركيبتـه الكيميائيـة والفيزيائيـة وضـد تغيير الألـوان وضد تفكك الصـفائح وعيـوب الصـناعة لمـدة عشـرون عامـا مـن تـاريخ الإنتـاج مـا لـم يتعـرض إلـى اسـتخدام أدوات و/ أو مـواد تنظيـف غيـر آمنـة وغيـر مناسـبة، ومـا لـم يتعـرض ميكانيكيـة تركيـب و/ أو ثنـي غيـر سـليم ومخـالف للآليـات والأسـاليب المتعـارف عليهـا فنيـا والمنصـوص عليهـا فـي آليـة إرشـادات التنظيـف، ومـا لـم يتعـرض إلـى تـأثير الكـوارث الطبيعيـة التـي لا يمكـن أن تخلـف مـؤثرات خارجة عن الأجواء المعتادة في بلد الاستلام

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شركة ذات مسؤولية محدودة
الإدارة العامة
رأس المال ٥٠٠,٠٠٠ ريال

رقم الخطاب	ENG/07/2016
التاريخ الهجري	1438/03/23 هـ
التاريخ الميلادي	2016/12/22 م

السادة	شركة مصنع تقنية الألواح (تكنوبانل)	المحترمين
المكرم	مدير الشركة	المحترم
الموضوع	إعتماد منتج مصنع تقنية الألواح (تكنوبانل) لدي شركة التسهيلات للتسويق.	

السلام عليكم ورحمة الله وبركاته ،

إشارة الي طلب سيادتكم لإعتماد منتجكم لدي محطات سهل (شركة التسهيلات للتسويق) (ألواح كلادينج مقاوم للحريق سمك اللوح 4 مم للونين 102 و 403 طبقا لكتالوج الألوان الخاص بشركة مصنع تقنية الألواح (تكنوبانل))،

نفيدكم بأنه يمكنكم تقديم عيناتكم لمقاولي مشاريع التطوير بمحطات سهل (شركة التسهيلات للتسويق) وفق إشتراطات البلدية والدفاع المدني ، علي أن تلتزم شركة مصنع تقنية الألواح شهادة ضمان علي كل مشروع يتم توريده من تاريخه .

ولسيادتكم جزيل الشكر

م. محمد فاروق أيوب
25/12/2016
نائب الرئيس

Head Office : P.O.Box 68219 , Riyadh 11527 - Tel.: 011-2691499 - Fax:011-2691182 - C.R.: 1010149186 - C.C: 88399
Jeddah Tel.: 6626368 Fax: 6626097 | Dammam Tel.: 8421989 Fax: 8423297 | Medinah Tel.: 8459884 Fax: 8444377 | Al-Ahsa Tel.: 5316149 Fax: 5823842
tas-helat.com - E-mail: info@tas-helat.com
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سهل Sahel

KSA

TECHNOPANEL

ALUMINIUM COMPOSITE PANEL

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CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Tqneyat Al Alwah (Panels Technology Factory, Technopanel)

Main Site: Bldg 214-217 Al Madaen Industrial Zone New Al Kharj Road, PO Box 10342 Riyadh 11433 Kingdom of Saudi Arabia

Additional Site: Tqneyat Al Alwah (Panels Technology Factory, Technopanel), King Faisal Road, Opp. Municipality of Malham, Riyadh, Kingdom of Saudi Arabia

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Manufacturing of Aluminium Composite Panel

Certificate Number:
180735-01

Initial Certification Date:
05 August 2021

Date of Certification Decision:
05 August 2021

Issuing Date:
05 August 2021

Valid Until:
04 August 2024

UKAS MANAGEMENT SYSTEMS
014

Calin Moldovean
President, Business Assurance

Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.

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You have been awarded:

Intertek ETL US Mark for Building Panels, Building Materials With Surface Burning Characteristics

Standards: ASTM E84 (2016)

Certificate number: WHI17-30486701

Organization: Tqneyat Al Alwah (Panels Technology Factory) - Technopanel
P.O. Box 10342, Bldg 214 – 217
Al Madaen Industrial Zone, New Kharj Road
Riyadh 11433
Kingdom of Saudi Arabia

Product: Tqneyat Al Alwah (Panels Technology Factory) - Technopanel - FR B1 Aluminum Composite Panel
Spec ID: 41787
Listing Information: See following page(s)

Certification body: Intertek Testing Services NA, Inc.
Initial registration: July 04, 2017
Date of expiry: December 31, 2021
Issue status: 9

Authorized By: _____
Jean-Philippe Kayl, Director of Certification

Intertek Testing Services NA, Inc.
545 E. Algonquin Road, Ste H., Arlington Heights, IL 60005 USA
Phone: 847-439-5667 Fax: 847-439-7320

www.intertek.com

LISTING INFORMATION

Technopanel Fire-Retardant B1 Aluminum composite panel (FR-ACP) is a product consisting of two sheets of aluminum bonded to each side of a halogen-free fire-retardant polyethylene core. Panels are available in 4mm, 5mm, or 6mm thickness.

FLAME SPREAD RATINGS

Panel tested*

Test Standard	Flame Spread Index	Smoke Development Index
ASTM E84	5	20

Core tested**

Test Standard	Flame Spread Index	Smoke Development Index
ASTM E84	30	145

*Results based on 6.0mm thick panel. Flame spread rating only valid with exterior skin facing towards the flame.
**Results based on testing with one side of aluminum skin removed and core material facing towards the flame.

مطابقة MOTABAQAH

الشركة السعودية للمختبرات الخاصة
Saudi Specialized Laboratories Co.

TEST REPORT

PHYSICAL PROPERTIES OF ALUMINUM COMPOSITE PANEL FOR EXTERNAL CLADDING AND INTERNAL FINISH
SASO 2752-2016

Customer	Tqneyat Al Alwah (Techno Panel)	Sample Description	Aluminium Composite Panel (FRA2)
Project Name	Internal Quality Check	Sample Source	Tqneyat Al Alwah (Techno Panel)
Project No.	NP	Sampling Method	NP
Location	Riyadh, KSA	Sampling Date	NP
Contractor	NP	Sampled by	Customer
Consultant	NP		
CBML Project No.	CBMP-00128-17	Date Received	23-Dec-18
CBML Sample No.	CBM-231218-026	Sample Condition	Normal
CBML Report No.	CBMR-18-04187	Environmental Condition	25 °C
Date of Report	25-Dec-18	Date of Test	24-Dec-18
Material Description	Aluminium Composite Panel (FRA2)	Customer Identification	30318-3436
Manufacturer	Tqneyat Al Alwah (Techno Panel)	Sampled Location	Tqneyat Al Alwah (Techno Panel)
Production date	20-Dec-18	Sample delivered by	Customer

TEST RESULTS

Clause No	Test Parameters		Specimen No. 1	Specimen No. 2	Specimen No. 3	Average	Specification Limits (SASO 2752-2016)	Remarks
TENSILE STRENGTH (SASO ISO 527-2)								
2.5	Thickness	mm	4.36	4.34	4.33	4.34		
	Width	mm	25.02	25.00	25.01	25.01		
	Tensile Strength	MPa	36.4	36.8	36.6	36.60	≥ 30 Mpa	Pass
180° PEEL TEST FOR FLEXIBLE BONDED TO RIGID SURFACE SPECIMEN OF (SASO ISO 8510-2)								
2.7	Length	mm	100	100	100	100		
	Width	mm	25.01	25.02	25.01	25.01		
	Peel Off Strength	N/mm	12.80	13.05	12.70	12.85	≥ 9.0 N/mm	Pass
FLEXURAL STRENGTH (SASO ISO 178-2014)								
2.5	Span Length	mm	200	200	200			
	Width	mm	25.01	25.02	25.02	25.02		
	Thickness	mm	4.33	4.35	4.32	4.33		
	Flexural Strength	MPa	103.40	101.80	104.50	103.23	≥ 70 MPa	Pass
***IMPACT TEST (ISO 6272-2 : 2014)**								
2.16	Drop heigth	mm	500	500	500	-		
	Observation		No Peel off or Crack	No Peel off or Crack	No Peel off or Crack	-	50kg/cm No Peel off,No Cracks.	Pass

Kingdom of Saudi Arabia
P.O.Box 88458 Riyadh 11662
Phone: +966 920029293
Fax : +966 920029296
Membership No.: 174400
C.R.No. 1010225110
Closed Shareholding Co.: Fully Paid up Capital: S.R. 500,000,000

للإتصال من خارج المملكة
هاتف : ٠٩٦٦ ١ ٤١٦٠١١٠
فاكس : ٠٩٦٦ ١ ٤٦٥٤٩٠٧

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فاكس : ٠٩٦٦ ٩٢٠٠٢٩٢٩٦
رقم العضوية : ١٧٤٤٠٠
السجل التجاري : ١٠١٠٢٢٥١١٠
شركة مساهمة مقفلة برأس مال : ٥٠٠٠٠٠٠٠ ر.س (مدفوع بالكامل)

مطابقة MOTABAQAH

الشركة السعودية للمختبرات الخاصة
Saudi Specialized Laboratories Co.

TEST REPORT

PHYSICAL PROPERTIES OF ALUMINUM COMPOSITE PANEL FOR EXTERNAL CLADDING AND INTERNAL FINISH
SASO 2752-2016

***SPECULAR GLOSS (SASO ISO 2813)**								
2.12	Angle	°	60	60	60	-		
	Reflectance	%	95.3	94.9	94.7	95.0	reflectance ≥70 at 20°and ≤ 5at 85°	Pass
***FILM HARDNESS BY PENCIL TEST (SASOGSO ISO 15184)**								
2.15	Scale of Pencil	HB	5	5	5		-	
	Observation		F-3H	F-3H	F-3H		Min.F-2H	Pass
***T-BEND TEST OF PAINT (SASO ISO 17132)**								
2.14	Width	mm	25	25	25	25	25	25
	Observation on Paint		No any crack	No any crack	No any crack	No any crack	No any crack	No any crack
			25	25	25	25	25	25
			No any crack	No any crack	No any crack	No any crack	No any crack	No any crack
							≥ 2 T Bending No any cracks or damage on the Coating for external waal and ≥3 for internal wall	Pass
***CROSS CUT TEST OF PAINT (SASO ISO 2409)**								
	Adhesive Grade		1	2	3			
	Grade In Grid Way		0	0	0		In Grid way : Grade 0	Pass
	Grade In Circle Way		1	1	1		In Circle way : Grade 1	Pass
***RESISTANCE TO LIQUID WATER IMMERSION METHOD (SASO ISO 2812)**								
	Water Temperature	°C	99	99	99		-	
	Time of Immersion	min.	120	120	120		-	
	Observation		No Color change	No Color change	No Color change		No Color change at 88°C to 100°C min	Pass

Tested by : MSSH
Test Variation : NIL
Remark : NIL

AUTHORIZED SIGNATORY

CBMR-170 Rev. 0
Result related to the items tested
This testreport shall not be reportedexcept in full, withoutthe written approval of the laboratory

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للإتصال من خارج المملكة
هاتف : ٠٩٦٦ ١ ٤١٦٠١١٠
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ص.ب ٨٨٤٥٨ الرياض ١١٦٦٢
هاتف : ٠٩٦٦ ٩٢٠٠٢٩٢٩٣
فاكس : ٠٩٦٦ ٩٢٠٠٢٩٢٩٦
رقم العضوية : ١٧٤٤٠٠
السجل التجاري : ١٠١٠٢٢٥١١٠
شركة مساهمة مقفلة برأس مال : ٥٠٠٠٠٠٠٠ ر.س (مدفوع بالكامل)

METS ميديل ايست لخدمات الفحص ذ.م.م.
Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

Report No.: METS-R 3322-02/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter		Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Material					
Dimension	Length	SASO 2752:2019 Cl. 10.3.1	mm	300.86	±3
	Width	SASO 2752:2019 Cl. 10.3.1	mm	301.31	±2
	Thickness	SASO 2752:2019 Cl. 10.3.2	mm	4.112	±0.2
Deviation of diagonal		SASO 2752:2019 Cl. 10.3.3	mm	1.08	≤5
Straightness at sides		SASO 2752:2019 Cl. 10.3.4	mm/m	0.31	≤1
Warpage		SASO 2752:2019 Cl. 10.3.5	mm/m	2.01	≤5
Appearance of the panel					
Wave		SASO ISO 4628 Parts (1 to 5,7,10 / 2016) part 6 / 2011 & part 8 / 2012	-	Absent	Not allowed
Bubble			-	Absent	Not allowed
Spot-Size			mm	Not observed	≤3
Spot-Number			-	Not observed	≤3/m²
Cut			-	Absent	Not allowed
Concave-Convex			-	Absent	Not allowed
Scratch			-	Absent	Not allowed
Stain			-	Absent	Not allowed
Color Deviation		SASO ASTM D 2244-2014	-	Pass	Non-obvious in visual observation, ΔE≤2
Panel mechanical properties requirements					
Coating thickness		SASO ISO 2360:2012	µm	39.8	≥30
Pencil hardness		SASO GSO ISO 15184:2015	-	F-2H	≥HB
Coating Flexibility (T- Bent test)		ISO 17132:2007	-	Pass	≤2 Without any cracks damage on the coating
Adhesion Grade		SASO ISO 2409:2020	Grade	0[1]	≤1
Impact resistance(kg.cm)		SASO ISO 6272-2:2014	-	No cracks observed at 50 kg.cm	Shall not be any peel off and cracks
Abrasion resistance		SASO ASTM D 968:2017	L/µm	>2	≥ 2
Stain resistance		SASO ISO 11998:2007	%	2	≤5
Chemical resistance					
Alkali resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Acid resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Oil resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Solvent resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Hot water resistance*		SASO ISO 2812-2:2014	-	Resistant	Shall be resistant

Form MRF 27 Issue No: 2

P.O. Box: 31442, Ajman - UAE | Tel: +971 67 445538 | E-mail: lab@metslab.com | Web: www.metslab.com

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Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

TEST REPORT

Report No.: METS-R 3322-02/2022

Client / Establishment	: M/s. Alloy Technology Factory Company Kingdom of Saudi Arabia
Sample ID	: METS-S22-3322-02
Sample Receiving Date	: 08/04/2022
Reporting Date	: 03/07/2022
Date of Analysis	: 08/04/2022-03/07/2022
Tested by	: JM/SC
Issue No	: 01 (Re-Issue Date: NA)

Sample Information:

Sample Description	: Aluminium Composite Panel- A2 FR – ACP A2 FR & A2 FR Core

Brief Evaluation of the Results

	Test	Compliance
METS-S22-3322-02	Physico-Chemical Analysis	Pass

*The tested parameter comply with SASO 2752:2019 specification limit

The corresponding test results are furnished in following page

Prepared by

Chemist
Material Science Division (MSD)
Employee Code: METS AJ EC 152

Verified by

Team Head
Material Science Division (MSD)
Employee Code: METS AJ EC 136

Form MRF 27 Issue No: 2

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Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

Report No.: METS-R 3322-02/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter	Test Method	Unit	Result	Specification Limit SASO 2752:2019
Acoustic Properties				
Sound absorption Factor	ISO 354:2003	-	0.042	-
Sound Transmission loss	ISO 717-1:2020	dB	25	-
Loss Factor	EN ISO 6721 Frequency range 100 - 3200 Hz	-	0.0086	-
Technical Properties				
Section Modulus W	DIN 53293-1982	cm^3/m	1.77	-
Rigidity – Poisson's ratio	DIN 53293-1982	kNm^2/m	0.31	-
Lacquering*	FT-IR / METS-IP 160	-	Polyester	-

Note 1: Separate core samples were submitted by the client for thermal resistance and transmittance study

* Parameter accredited by IAS in accordance with ISO/IEC 17025:2017

*[1] The edges of the cuts are completely smooth, none of the squares of the lattice is detached.

For further clarification of reports, please contact qc@metslab.com

-End of Report-

Form MRF 27 Issue No: 2

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Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

Report No.: METS-R 3322-02/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter	Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Thermal properties (core thermal properties)				
Heat Deflection Temperature	SASO ISO 75-2:2014	°C	89	85 Min
Linear Thermal Expansion Coefficient	ASTM D 696:16	µm/m-°C	151	200 Max
Self-ignition temperature	SASO ASTM D1929:2015	°C	>350	343 Min
Temperature Resistance @ -50 to +80	Visual	-	No defect	-
Thermal conductivity of core, K_c	ASTM C 518-17 / BS EN ISO 6946:2007	W/mk	0.4148	-
Thermal resistance of core, R_c		m^2K/W	0.0559	-
Internal surface resistance, R_{SI}			0.13	-
External surface resistance, R_{SE}			0.04	-
Total Thermal resistance, R_T			0.2259	≥0.06
Thermal transmittance (U value)	ASTM C 518-17	$W/m^2.K$	4.43	≤4.5
Drum peel strength	ASTM D1781-98 (2021)	N.mm/mm	107	≥100
Accelerated Weathering at 2000 hours	SASO ISO 16474-2:2015	-	No change observed	Shall have no change
Gloss Deviation*	SASO ISO 2813:2015	-	4	≤10
Salt Fog Resistance at 2000 hours	ISO 11997-1:2017	-	No change observed	Shall have no change
180 degrees Peel Strength	SASO ISO 8510-2:2008	N/mm	9.15	≥9.0
Shear Strength	ASTM C393 / C393 M-16	MPa	23	≥22
Bending Strength	ASTM C393/C 393 M-16	MPa	109	≥100
Bend Elastic Module	ASTM C393/C 393 M-16	MPa	21856	≥20000
Thickness of aluminium layer	ASTM A 370-04	mm	0.55	-
Mass per unit area	ASTM B 767-02	kg/m^2	8.46	-
Glose initial Value at 20°*	SASO ISO 2813:2015	-	66.9	-
Glose initial Value at 60°*	SASO ISO 2813:2015	-	89.9	-
Glose initial Value at 85°*	SASO ISO 2813:2015	-	93.4	-

Form MRF 27 Issue No: 2

P.O. Box: 31442, Ajman - UAE | Tel: +971 67 445538 | E-mail: lab@metslab.com | Web: www.metslab.com

Report No.: METS-R 3322-01/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter		Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Material					
Dimension	Length	SASO 2752:2019 Cl. 10.3.1	mm	301.82	±3
	Width	SASO 2752:2019 Cl. 10.3.1	mm	301.05	±2
	Thickness	SASO 2752:2019 Cl. 10.3.2	mm	4.179	±0.2
Deviation of diagonal		SASO 2752:2019 Cl. 10.3.3	mm	1.14	≤5
Straightness at sides		SASO 2752:2019 Cl. 10.3.4	mm/m	0.33	≤1
Warpage		SASO 2752:2019 Cl. 10.3.5	mm/m	2.05	≤5
Appearance of the panel					
Wave		SASO ISO 4628 Parts (1 to 5,7,10 / 2016) part 6 / 2011 & part 8 / 2012	-	Absent	Not allowed
Bubble			-	Absent	Not allowed
Spot-Size			mm	Not observed	≤3
Spot-Number			-	Not observed	≤3/m²
Cut			-	Absent	Not allowed
Concave-Convex			-	Absent	Not allowed
Scratch			-	Absent	Not allowed
Stain			-	Absent	Not allowed
Color Deviation		SASO ASTM D 2244-2014	-	Pass	Non-obvious in visual observation, ΔE≤2
Panel mechanical properties requirements					
Coating thickness		SASO ISO 2360:2012	µm	43.1	≥30
Pencil hardness		SASO GSO ISO 15184:2015	-	F-3H	≥HB
Coating Flexibility (T- Bent test)		ISO 17132:2007	-	Pass	≤2 Without any cracks damage on the coating
Adhesion Grade		SASO ISO 2409:2020	Grade	0[1]	≤1
Impact resistance(kg.cm)		SASO ISO 6272-2:2014	-	No cracks observed at 50 kg.cm	Shall not be any peel off and cracks
Abrasion resistance		SASO ASTM D 968:2017	Lµm	>2	≥ 2
Stain resistance		SASO ISO 11998:2007	%	2	≤5
Chemical resistance					
Alkali resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Acid resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Oil resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Solvent resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Hot water resistance*		SASO ISO 2812-2:2014	-	Resistant	Shall be resistant

Form MRF 27 Issue No: 2

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METS ميديل ايست لخدمات الفحص ذ.م.م.
Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

TEST REPORT

Report No.: METS-R 3322-01/2022

Client / Establishment	: M/s. Alloy Technology Factory Company Kingdom of Saudi Arabia
Sample ID	: METS-S22-3322-01
Sample Receiving Date	: 08/04/2022
Reporting Date	: 03/07/2022
Date of Analysis	: 08/04/2022-03/07/2022
Tested by	: JM/SC
Issue No	: 01 (Re-Issue Date: NA)

Sample Information:

Sample Description	: Aluminium Composite Panel-374 FR-B1-ACP "30 x 30" & FR Core B1

Brief Evaluation of the Results

	Test	Compliance
METS-S22-3322-01	Physico-Chemical Analysis	Pass

*The tested parameter comply with SASO 2752:2019 specification limit

The corresponding test results are furnished in following page

Prepared by
Chemist
Material Science Division (MSD)
Employee Code: METS AJ EC 152

Verified by
Team Head
Material Science Division (MSD)
Employee Code: METS AJ EC 136

Form MRF 27 Issue No: 2

P.O. Box: 31442, Ajman - UAE | Tel: +971 67 445538 | E-mail: lab@metslab.com | Web: www.metslab.com

Report No.: METS-R 3322-01/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter	Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Thermal properties (core thermal properties)				
Heat Deflection Temperature	SASO ISO 75-2:2014	°C	91	85 Min
Linear Thermal Expansion Coefficient	ASTM D 696:16	µm/m-°C	148	200 Max
Self-ignition temperature	SASO ASTM D1929:2015	°C	>350	343 Min
Temperature Resistance @ -50 to +80	Visual	-	No defect	-
Thermal conductivity of core,K_c	ASTM C 518-17 / BS EN ISO 6946:2007	W/mk	0.3248	-
Thermal resistance of core, R_c		m^2K/W	0.0828	-
Internal surface resistance, R_{SI}			0.13	-
External surface resistance, R_{SE}			0.04	-
Total Thermal resistance, R_T			0.2528	≥0.06
Thermal transmittance (U value)	ASTM C 518-17	$W/m^2.K$	3.96	≤4.5
Drum peel strength	ASTM D1781-98 (2021)	N.mm/mm	109	≥100
Accelerated Weathering at 2000 hours	SASO ISO 16474-2:2015	-	No change observed	Shall have no change
Gloss Deviation*	SASO ISO 2813:2015	-	4	≤10
Salt Fog Resistance at 2000 hours	ISO 11997-1:2017	-	No change observed	Shall have no change
180 degrees Peel Strength	SASO ISO 8510-2:2008	N/mm	9.85	≥9.0
Shear Strength	ASTM C393 / C393 M-16	MPa	25	≥22
Bending Strength	ASTM C393/C 393 M-16	MPa	113	≥100
Bend Elastic Module	ASTM C393/C 393 M-16	MPa	22045	≥20000
Thickness of aluminium layer	ASTM A 370-04	mm	0.53	-
Mass per unit area	ASTM B 767-02	kg/m^2	7.18	-
Glose initial Value at 20°	SASO ISO 2813:2015	-	1.4	-
Glose initial Value at 60°	SASO ISO 2813:2015	-	12.5	-
Glose initial Value at 85°	SASO ISO 2813:2015	-	40.7	-

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Middle East Testing Services L.L.C.
ilac-MRA IAS ACCREDITED Testing Laboratory TL-888

Report No.: METS-R 3322-01/2022
Date of analysis: 08/04/2022-03/07/2022

Test Results:

Parameter	Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Acoustic Properties				
Sound absorption Factor	ISO 354:2003	-	0.046	-
Sound Transmission loss	ISO 717-1:2020	dB	24	-
Loss Factor	EN ISO 6721 Frequency range 100 - 3200 Hz	-	0.0088	-
Technical Properties				
Section Modulus W	DIN 53293-1982	cm^3/m	1.82	-
Rigidity – Poisson's ratio	DIN 53293-1982	kNm^2/m	0.34	-
Lacquering*	FT-IR / METS-IP 160	-	Polyester	-

Note 1: Separate core samples were submitted by the client for thermal resistance and transmittance study

* Parameter accredited by IAS in accordance with ISO/IEC 17025:2017

*1 The edges of the cuts are completely smooth, none of the squares of the lattice is detached.

The above test results are only applicable to the sample (s) referred above. This report shall not be reproduced except in full, without the written approval of METS laboratory.

For further clarification of reports, please contact qc@metslab.com

-End of Report-

Form MRF 27 Issue No: 2

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TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:
Panel Technology Factory (Technopanel)
Al-Mashael
Riyadh, Saudi Arabia
T: +966 920006292
Website: www.technopanel.com.sa

Test Material / Assembly:
4mm Thick Aluminium Composite Panel- FR A2

Test Standard:
ASTM E84 – 21a: Standard Test Method for Surface Burning Characteristics of Building Materials

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 2-Aug-22
Issue Date: 08-Feb-23
Test Reference No: WC029-5 (Rev.01)

PO BOX 26385, DUBAI UAE T +971 (0)4 821 5777 fire@bell-wright.com www.bell-wright.com

DUBAI DOHA RIYADH

TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:
Panel Technology Factory (Technopanel)
Al Mashael Riyadh, Saudi Arabia
T: +966 920 006 292
Website: www.technopanel.com.sa

Test Material / Assembly:
4mm thick Aluminium Composite Panel-FR A2

Test Standard
BS EN ISO-1716:2018 Reaction to Fire Tests for Products - Determination of the Gross Heat of Combustion (Calorific Value)

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 02-Dec-22
Issue Date: 04-Jan-23
Test Reference No: WC029-7

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DUBAI DOHA RIYADH

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL

TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:
Panel Technology Factory (Technopanel)
Al Mashael Riyadh, Saudi Arabia
T: +966 920 006 292
Website: www.technopanel.com.sa

Test Assembly:
4mm thick Aluminium Composite Panel-FR A2

Test Standard

BS EN 13823:2020 Reaction to Fire Tests for Building Products — Building Products excluding Floorings exposed to the Thermal Attack by a Single Burning Item

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 13-May-22
Issue Date: 04-Jan-23
Test Reference No: WC029-6

PO BOX 26385, DUBAI UAE T +971 (0)4 821 5777 fire@bell-wright.com www.bell-wright.com

DUBAI DOHA RIYADH

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH BS EN 13501-1:2018

Test Sponsor:
Panel Technology Factory (Technopanel)
Al Mashael Riyadh, Saudi Arabia
T: +966 920 006 292
Website: www.technopanel.com.sa

Test Material / Assembly:
4mm thick Aluminium Composite Panel-FR A2

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Issue Date: 04-Jan-23
Classification Report Reference No: WC029-8

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DUBAI DOHA RIYADH

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH BS EN 13501-1:2018

Test Sponsor:

Panel Technology Factory (Technopanel)
Al-Mashael
Riyadh, Saudi Arabia
T: +966 92 000 6292
Website: www.technopanel.com.sa

Test Material / Assembly:

4mm thick Aluminium Composite Panel-FRB1

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Issue Date: 13-Feb-23
Classification Report Reference No: WC029-4

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DUBAI DOHA RIYADH

TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:

Panel Technology Factory (Technopanel)
Al-Mashael
Riyadh, Saudi Arabia
T: +966 92 000 6292
Website: www.technopanel.com.sa

Test Assembly:

4mm thick Aluminium Composite Panel-FRB1

Test Standard

BS EN 13823:2020 Reaction to Fire Tests for Building Products — Building Products excluding Floorings exposed to the Thermal Attack by a Single Burning Item

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 27-Jan-23
Issue Date: 13-Feb-23
Test Reference No: XA017-1

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DUBAI DOHA RIYADH

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL

TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:
Panel Technology Factory (Technopanel)
Al-Mashael
Riyadh, Saudi Arabia
T: +966 920006292
Website: www.technopanel.com.sa

Test Material / Assembly:
4mm Thick Aluminium Composite Panel – FR B1

Test Standard:
ASTM E84 – 21a: Standard Test Method for Surface Burning Characteristics of Building Materials

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 2-Aug-22
Issue Date: 08-Feb-23
Test Reference No: WC029-1 (Rev.01)

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DUBAI DOHA RIYADH

TEST REPORT
REACTION TO FIRE TEST

Test Sponsor:
Panel Technology Factory (Technopanel)
Al-Mashael
Riyadh, Saudi Arabia
T: +966 92 000 6292
Website: www.technopanel.com.sa

Test Material / Assembly:
4mm thick Aluminium Composite Panel-FRB1

Test Standard

BS EN 11925-2: 2020 - Ignitability of products subjected to direct impingement of flame (Part2: Single-flame source test)

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Test Date: 08-Jun-22
Issue Date: 13-Feb-23
Test Reference No: WC029-2

PO BOX 26385, DUBAI UAE T +971 (0)4 821 5777 fire@bell-wright.com www.bell-wright.com
DUBAI DOHA RIYADH

TECHNOPANEL
ALUMINIUM COMPOSITE PANEL