



Building a Better Future

www.nationalpanels.com



شركة الألواح الوطنية للصناعة
National Panels Company for Industry

 **SINCO**

 **qnap**[®]

 **qbond**[®]





About us

Innovation for sustainable development

National Panel has been founded with clear vision to support Kingdom of Saudi Arabia growing construction industry by providing highest quality architectural products with combination modern technology and environment friendly products to deliver the best to fulfill the satisfaction of our client and customer.

As one of the 100% Saudi Manufacturing company for Aluminium composite panel and corrugated panel, National panel closely adheres to Saudi

National Vision 2030 achieving high standards with sustainable solution.

National Panel has acquired the Brand QNAP, QBOND, SINCO & Q SIGN from QATAR NATIONAL ALUMINIUM PANEL- Qatar to produce in Saudi Arabia with same standard set by QNAP. With more than 10 years of manufacturing experience and completed many world class projects including FIFA stadium in Qatar.

National Panel assure to keep up the quality and brand name achieved by Qatar National Aluminium Panel.



PRODUCTS

National Panel offers a variety of quality products with pride. A firm dedicated to and capable of creating World Class products.



Premium Products

Corrugated Core Aluminium Panel (SINCO)
ALUMINIUM COMPOSITE PANEL (FR CORE) QNAP
ALUMINIUM COMPOSITE PANEL (LDPE CORE) QNAP

Commercial Products

ALUMINIUM COMPOSITE PANEL FR -QBOND
ALUMINIUM COMPOSITE PANEL (LDPE) QBOND

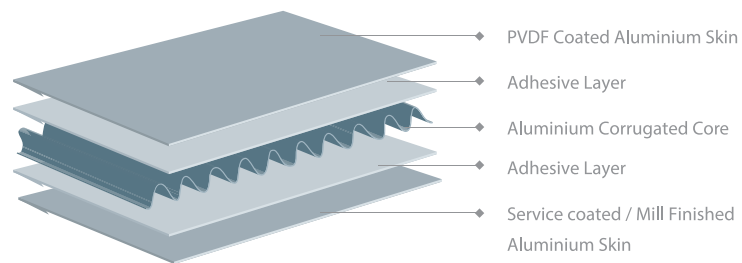
Signage Product

ALUMINIUM COMPOSITE PANEL LDPE- QSIGN



CORRUGATED SINGLE ALUMINIUM CORE PANELS A2 CLASS

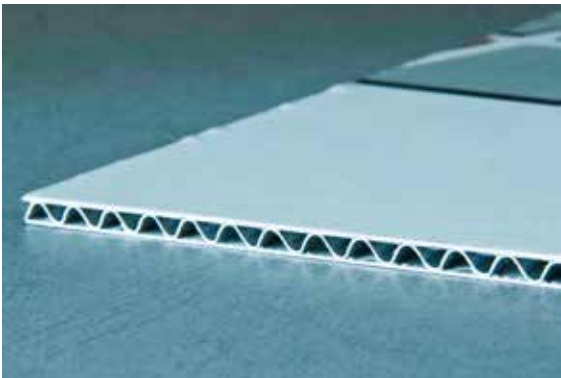
GCC patent app No. 2008/10962



Physical and Mechanical Properties

Metal Composite Panels: ACP & SINCO are known for its versatile physical and mechanical proprieties. The top PVDF coated aluminium skin and the service coated bottom aluminium skin bonded on the corrugated aluminium core together with an adhesive. This thermosetting adhesive is processed in high temperature (about 150 – 200° C), so there shall be neither adhesive failure of the bond between the core and the skin nor cohesive failure of the core itself. Here below are the standard physical and mechanical properties of the standard composite panels.

Item	Method	Unit	SINCO
			6 mm
Weight	-	Kg/m ²	4.50
Coefficient of Linear Thermal Expansion mm/mm/ °C	ASTM D696	X 10 -6/ °C	9.2
Thermal Conductivity	ASTM C518	W/(m.K)	0.449
Tensile Strength	ASTM E8	MPa	50
0.2% Proof Stress	ASTM E8	MPa	44
Elongation	ASTM E8	%	5
Temperature Stability	-	°C	-40 to 120



Advantages

- Non- Combustible
- Resistance to Heat
- Light Weight
- Eco Friendly
- Durable
- Economic

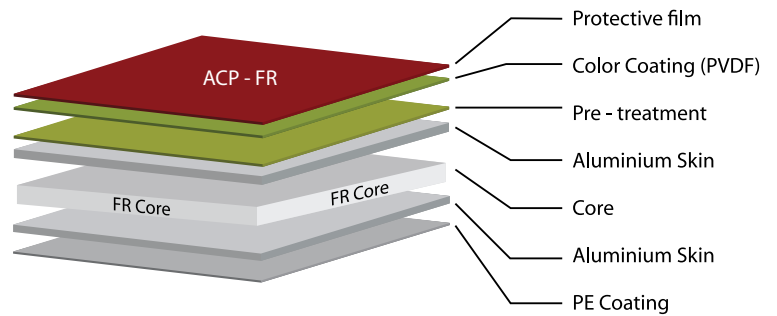




ALUMINIUM COMPOSITE PANEL: QNAP ACP-FR

Composition

National Panel ACP - FR is composed of a fire retardant mineral core sandwiched between two aluminium alloy sheets and is produced through continuous co-extrusion process by fully automated machinery for a perfect product. The face of the panel is layered with PVDF (Kynar 500) fluorocarbon coating while the rear is available in polyester coated.



ALUMINIUM COMPOSITE PANEL – QNAP & QBOND ACP PE

As a market leader, National Panel offers two types of Non-fire rated Aluminium Composite Panel, National Panel ACP – PE virgin & ACP - PE recycled core. These are high quality and cost effective solution for building facades.

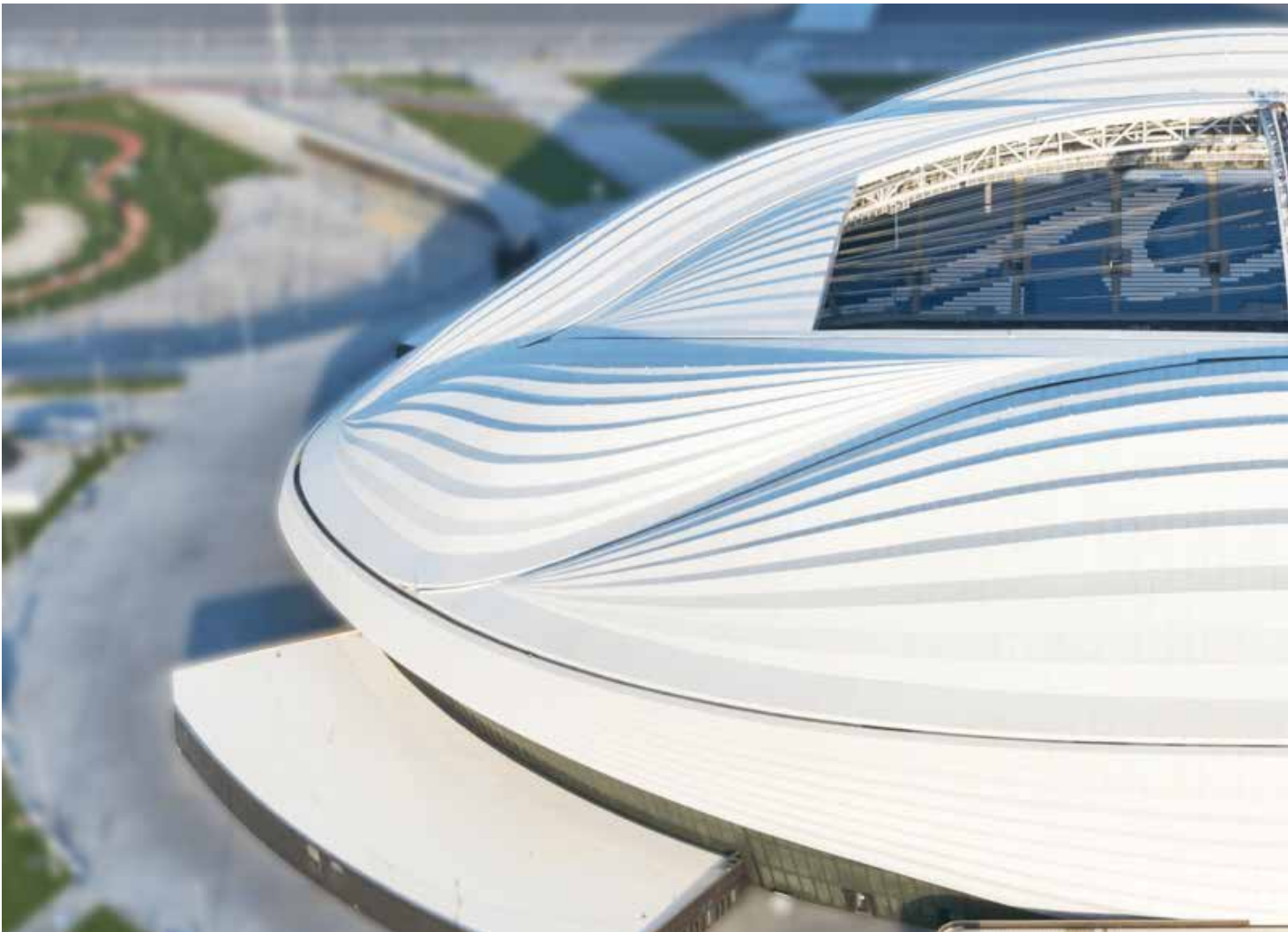
Composition

National Panel ACP - PE (non fire rated) consists of two layers of light gauge Aluminium filled with virgin low density or Recycled LDPE core material. These panels are formed through continuous co-extrusion process providing high mechanical and chemical bonding.



PRODUCT FIRE TESTING RESULTS

Sl No.	Test Description	Test standard	Q-NAP SINCO	Q-NAP ACP-FR	Q-NAP ACP-PE	Test LAB
1	Surface spread of flame	BS 476 Part 6	Class 0	Class 0	Class 0	Bodycote Warrington Fire
2	Fire Propagation	BS 476 part 7	Class 1	Class 1	Class 1	Bodycote Warrington fire
3	Non-combustibility	BS 476 Part 4	Non-combustible			TUV SUD-PSB Singapore
4	Testing of Flammability	DIN 4102-1	Class A2	Class B1		Bodycote Warrington Brandhaus
	Smoke Production					
	Droplets					
5	Surface Burning Characteristic	ASTM E 84		Class A		Thomas Bell-Wright
6	Heat release, Flame spread, Smoke production, Flaming droplet, and Ignitability properties of the product	EN 13501-1		B-S1,d0		TUV SUD-PSB Singapore
7	Fire Performance Evaluation of Non-Load bearing Aluminium Wall-clad Assembly	ASTM E 119	Passed	Passed		Southwest Research Institute
8	Potential Heat of Building Materials	NFPA259		Passed		Intertek



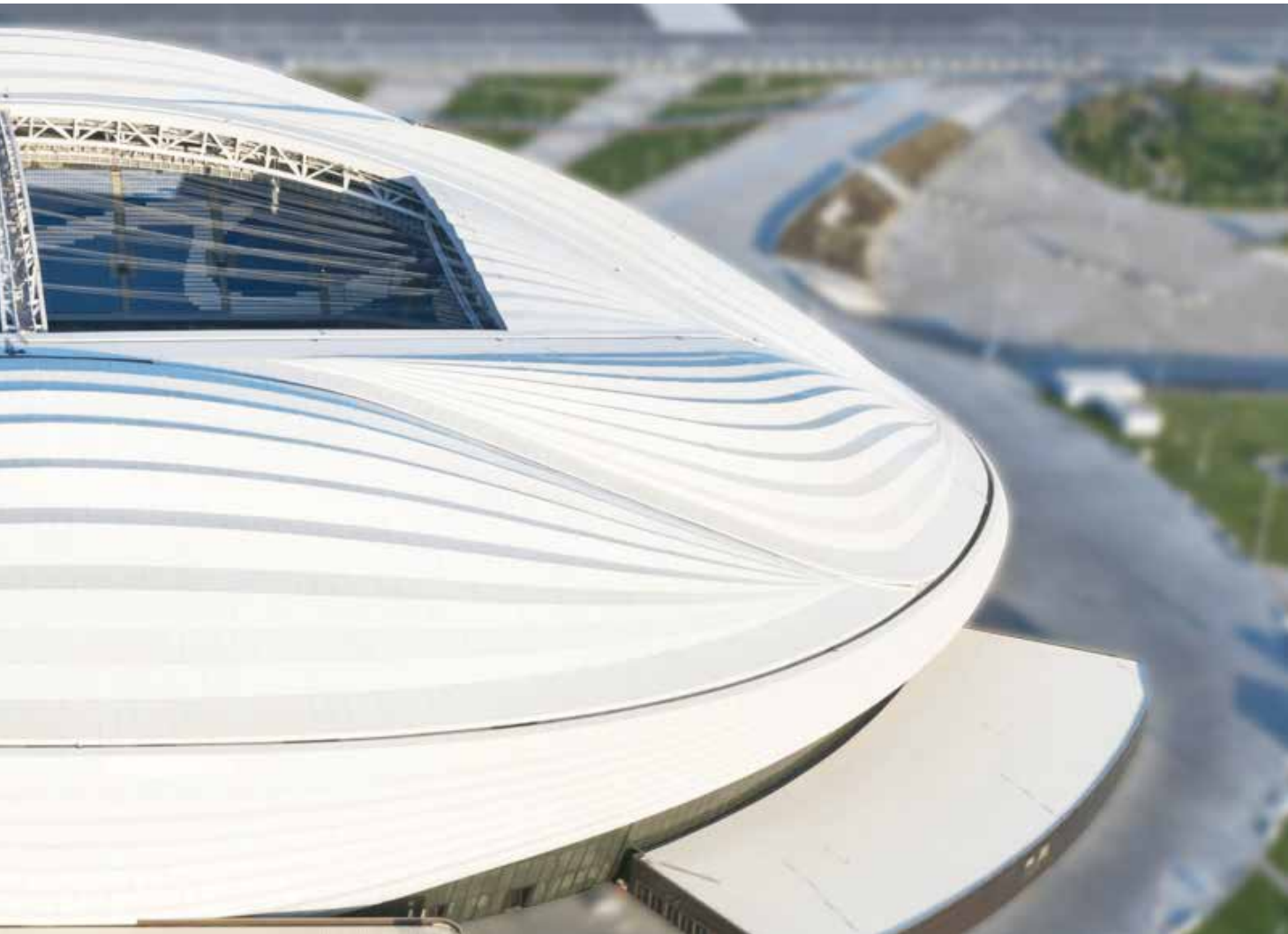
PRODUCT DIMENSIONS

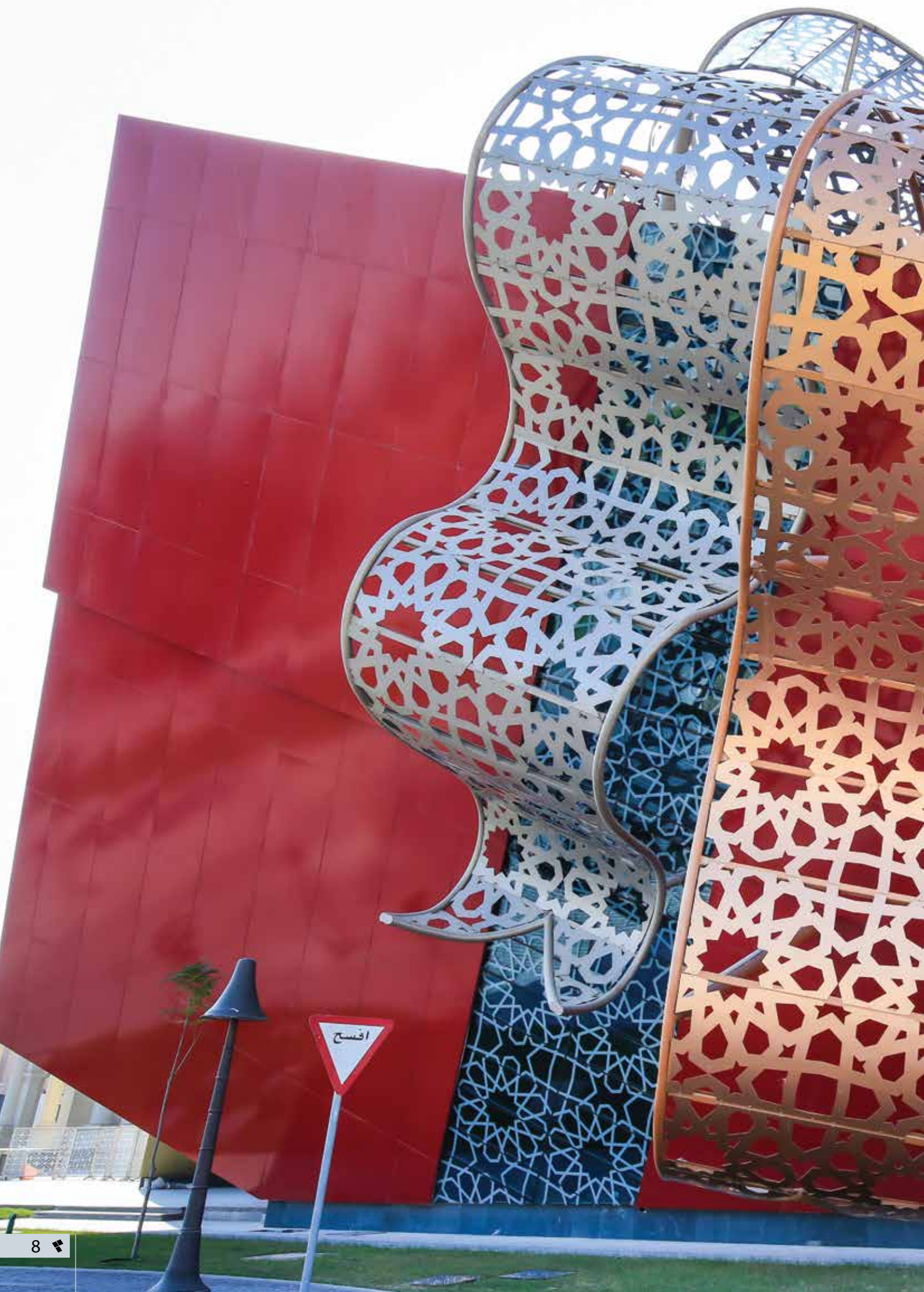
National Panels are available in various dimensions, however our standard dimension is 4 X 1250 X 3200 mm. Other special sizes are as follows:

Dimension	Unit	Standard	Available
Width	mm	1250	1250/1500/2010
Length	mm	3200	2000 - 5800
Thickness	mm	4	3,5 & 6

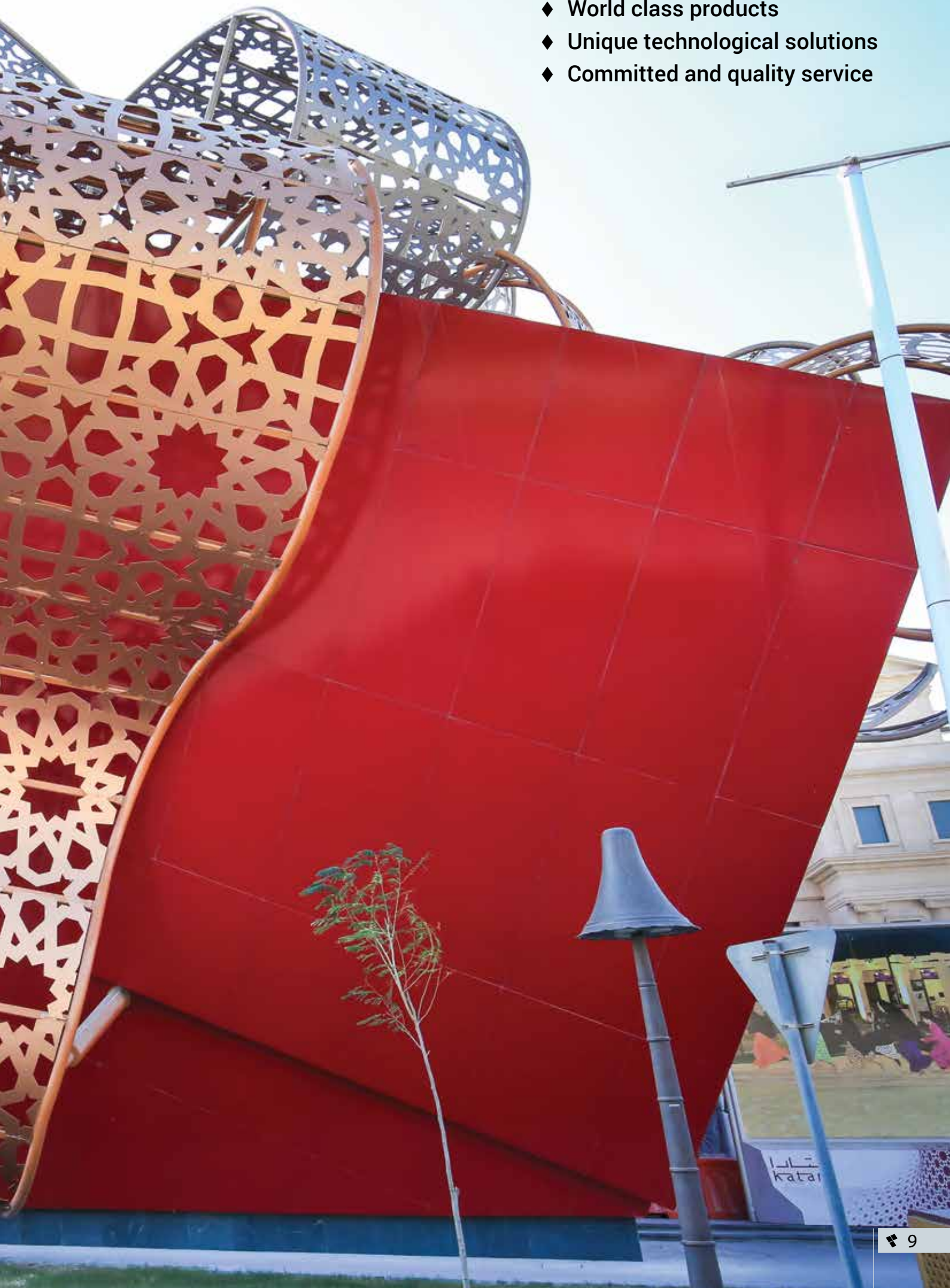
COLOURS & FINISHES

Available in various colours & Finishes. There are three color -types: Metallic colours, Solid colours and Patterns (Stone, Timber & Mosaic). As a standard, all colours are fluorocarbon coating produced in our continuous coil coating line. Refer to our Colour chart for detail. Custom colours are also available for all finishes upon request subject to minimum order quantity.





- ◆ World class products
- ◆ Unique technological solutions
- ◆ Committed and quality service



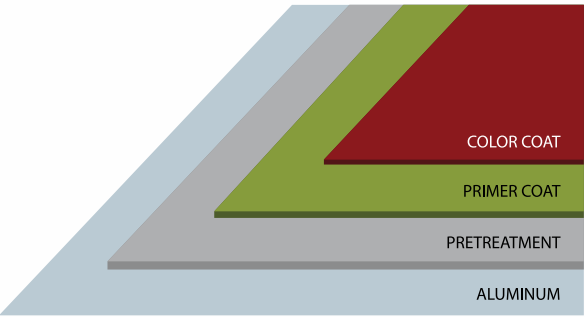
COATING

National Panel has set up an exclusive coil coating line, especially suitable for aluminium composite panel aesthetics, and catering to demanding of exterior climatic conditions.

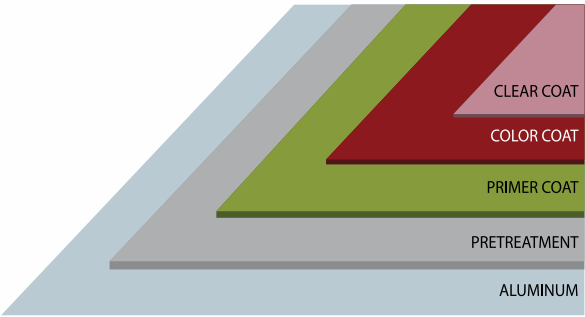
The four roll coater with combination of steel and hypon rollers gives the desired finishes, full width coating, to precise microns, as per AAMA & ECCA specification. As standard we use PVDF colors, however, at customer request, we also provide HDPE & Polyester finishes. Flourocarbon coatings are durable and will last much longer and suits outdoor applications.

National Panel's 30 meters long electric oven has three zones for precise curing temperature controls, and enough dwell time for achieving the specifications and weatherability test.

2 Coat



3 Coat



COATING PERFORMANCE

PROPERTY	RESULT	STANDARD
Gloss @ 60 °	30-80 %	ASTM D 523-14
Pencil Hardness	2H	ASTM D 3363-05
Formability (T-Bend)	2 T, No Cracking	ASTM D 4145-10
Adhesion :		
Dry	No Change	ASTM D 3359 Method B
Wet	No Change	37.8 °C, 24 hrs.
Boiling Water	No Change	100 °C, 20 Min.
Impact Resistance	No Pick off	ASTM D 2794 , 50 Kg- cm
Abrasive Resistance (Falling Sand)	40 liters	ASTM D 968-17 Method A
Salt Spray Resistance	Passes 3000 hrs.	ASTM B 117-16
Color Retention	Accelerated Test 4000 hrs. Maximum 5 units	ASTM D 2244-16 ,ASTM B 117
Gloss Retention	Accelerated Test 4000 hrs. 90 %	ASTM D 523-14
Chalk Resistance	Accelerated Test 4000 hrs. Max. 8 units	ASTM D 4214-07
Chemical Resistance :		
Mortar Resistance	No loss of film adhesion	AAMA 2605
Detergent Resistance	No Change	ASTM D 2248
Sulphuric Acid	No Change	ASTM D 1308
Muriatic Acid	No Change	ASTM D 1308

PERFORMANCE STANDARD OF NATIONAL PANEL ACP-FR

PROPERTY	UNIT	RESULT	STANDARD
Panel Thickness	mm	4	-
Weight	Kg/M²	7.5	-
Tensile Strength	Mpa	55	ASTM E 8
Yield Stregth	Mpa	47	
Elongation	%	≥ 5	
Deflection Tempera- ture Under load	°C	> 221	ASTM D 648
Thermal Conductivity	W/m.K	0.321	ASTM C 518
Sound Transmission Class	STC	28	ASTM E 413/E 90





PRODUCTION & PLANT

National Panel Co. is the only plant in State of Saudi that Manufactures aluminium composite panels.

Our products are manufactured by fully automatic state-of-the-art machinery ensuring high quality, unique products. Our plants are fully controlled by computerized operating system and continuous co- extrusion process.

Productivity Capacity

The plant has an average installed production capacity of above 2,000,000 M² Per annum in least exploited condition and is extendable.

Fully automated machinery for manufacturing aluminium composite panel brings unique products with high level of accuracy in dimensions, flawless adhesion, ideal flatness etc. will be an ultimate solution of a perfect architectural creation.

Quality Assurance

We believes that the success of business depends on providing high quality products and services to its valued customers. Hence National Panel has set up modern Quality and testing lab with sophisticated test equipments to conduct various tests as per international standards.

National Panel offers international level of quality, reliability, trust and service. Quality is ensured at every stage, from the raw material to the finished product.

THE FOUR STAGES OF QUALITY

Pre-Production Quality Assurance

Material is inspected thoroughly before being issued to production. Every raw material has a "Quality Plan" specifying parameters for testing and Inspection.

In- Process Control

At each stage of production, quality is ensured by vigorous process control check. All quality parameters are checked and recorded as per the quality plan. Every production is carried out based on internal progress checks.

Post Production Quality Assurance

At the end of each production run, final inspection is carried out to ensure that the products meet international standards, traceability of the product is also ensured through "Batch" system, in which a unique Batch Code is printed on each sheet which traces back to all input materials used in production batch.

Pre-dispatch Inspection

The finished product is checked before dispatch. An obsession for quality is the primary driving force of QNAP.





APPLICATIONS

Metal Composite Panels are sophisticated products with diverse applications, especially at Airports, shopping malls, Sports Stadiums, Commercial Towers, Petrol Stations etc.

Building facades

False Ceiling

Interior Partitions & Decorations

Embossing of Complex Structures

Display Stands

Superior Aesthetic Creations

National Panel offers superior products that can offer aesthetic creations, adding value to the creativity and imagination of an architect.

Architectural Designs

National panels are flexible yet rigid, offering diversity in application and making it one of the most favourite solution for complex design structures

Complex shapes

Versatile panels capable of making complex shapes provide uniqueness to the architecture a dream of designers and product of choice for builders.



PROJECT SHOWCASE



Al Sadd Building - West Bay - Doha



Barwa Complex, Al Sadd - Doha



Khalifa Stadium - Doha



Duhail Handball Sports Hall, Doha, Qatar



Warehouse Building, Umm Salal - Doha



Jaidah Tower, Airport Road - Doha



Qatar University Building - Doha



32 Industrial Facilities - Doha

Create your world Around



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