



THE ART OF EXTERIOR CLADDING



PIONEER[®]
METAL COMPOSITE PANEL



IS 17682 : 2021



QUALITY IS THE BEST BUSINESS PLAN



ABOUT

At **Pioneer Panels**, we are redefining the possibilities of architectural design with our premium range of **Metal Composite Panels (MCP)** and innovative surface solutions. With years of expertise, state-of-the-art technology, and a commitment to excellence, we have become one of the most trusted names in the industry.

Founded in 2018, Pioneer Panels is the result of a vision shared by experienced industrialists in manufacturing, product development, quality control, distribution, and sales of Metal Composite Panels (MCPs). Our brand has become synonymous with superior quality and trust among architects, façade specialists, interior designers, contractors, and end users of MCP.

Our state-of-the-art manufacturing facility which is **spread across 11,635 sq. mt.** is equipped with advanced machineries and automated processes, enabling us to deliver panels with exceptional precision, durability, and consistency. With a **high production capacity of 3 million sq. mt. p.a.**, we ensure reliable supply to meet the demands of large-scale projects across India and beyond.

Quality is at the core of everything we do. Our in-house laboratory conducts rigorous testing for ensuring that every panel complies with national and international standards. We proudly adhere to various **BIS, ISO, ASTM, and EN benchmarks**, offering our customers products that are safe, sustainable, and performance-driven.

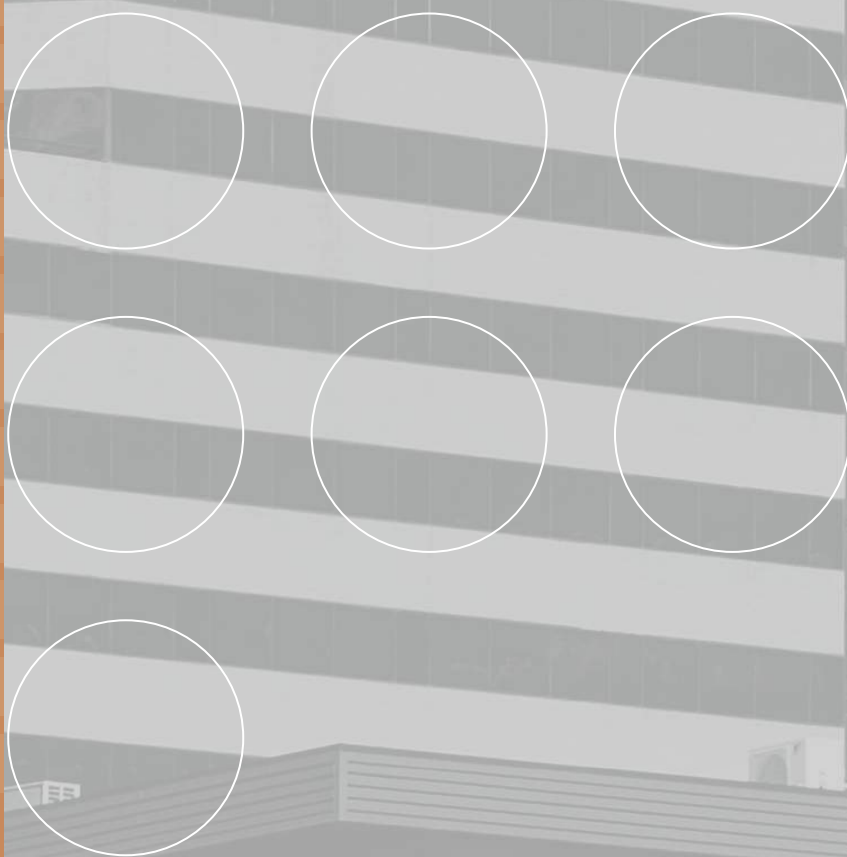
At Pioneer, we don't just provide panels — we deliver solutions that empower architects, fabricators, and designers to bring bold ideas to life. Our wide portfolio is designed to meet the evolving needs of modern architecture — from striking facades and cladding solutions to functional and aesthetic interior applications. Backed by our robust infrastructure, dedicated R&D, and customer-first approach, we continue to set new benchmarks for innovation, reliability, and service excellence.

Pioneer Panels – Where Innovation Meets Reliability.

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THE ART OF EXTERIOR CLADDING





Elegance

Durability

Strength

Colours

Shades

Finish

Style

MISSION

At Pioneer, we strive to produce high-quality and environmentally sustainable products. We uphold the highest ethical business practices and provide our customers with superior levels of service and product quality. We continuously invest in upgrading the skills of our employees to keep their capabilities relevant, enabling us to serve the interests of our stakeholders optimally



VISION

With continuous improvements in quality, we want to be the top of the mind of Builders, Architects, Fabricators, Interior designers and Contractors as Aluminium Composite panels manufacturer.

GOAL

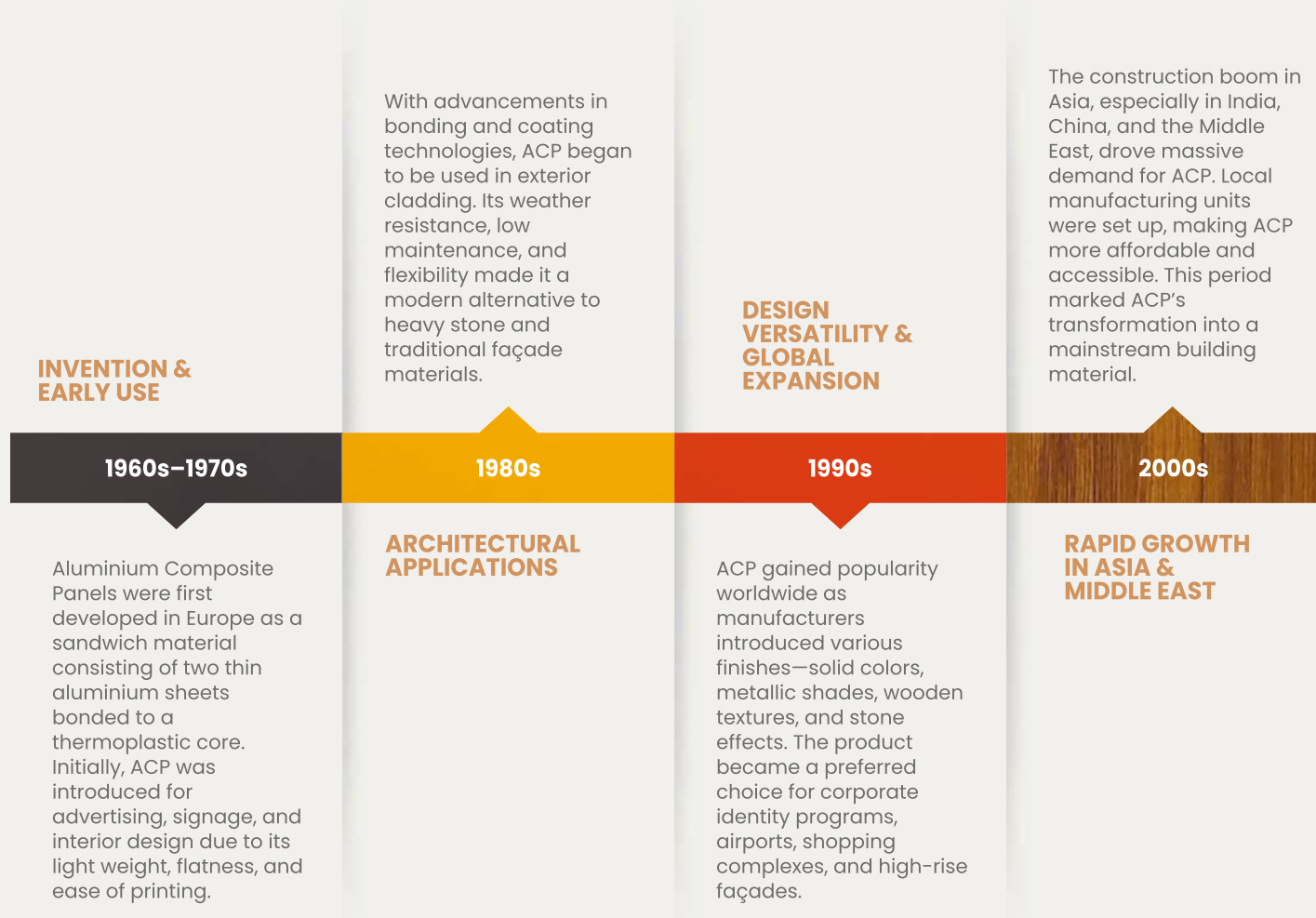
- Achieve production capacity of 6.0 million sq. mt. per annum against existing 3 million sq. mt. per annum.
- With backward integration in the manufacturing process, setting up a production line for coating top and bottom aluminium coils.
- Continuously introduce new collections, finishes, and applications.
- Establish Pioneer Panels as a globally recognized MCP brand by expanding exports.
- Adopt greener processes, reduce carbon footprint, and maximize the use of eco-friendly raw materials while complying with global safety and environmental standards.



EVOLUTION OF ACP SHEETS

Aluminium Composite Panels (ACP) are lightweight, durable, and versatile materials that have transformed modern construction.

Since their invention in the 1960s, they have evolved from signage applications to being central to façades, interiors, and large-scale architecture.





SAFETY & SUSTAINABILITY FOCUS

2010s

Increasing concerns around fire safety led to the development of fire-retardant (FR) and non-combustible cores. These advancements significantly improved the fire performance of ACP sheets, helping reduce flame spread and enhance overall building safety

Building on advancements introduced toward the end of the 2020s, ACP technology incorporated FEVE coatings, nano-coatings, and enhanced surface treatments to improve durability, colour stability, and weather resistance. Alongside these innovations, a stronger emphasis on sustainability and recyclability encouraged eco-friendly manufacturing practices aligned with green building norms.

2020

INNOVATION & SMART SOLUTIONS

PRESENT

Today, ACP has evolved beyond flat panels into advanced architectural solutions such as honeycomb panels, louvers, fins, and 3D ACP panels. These innovations combine lightweight strength with enhanced aesthetics, functionality, durability, and safety.

From a niche cladding and signage material to a comprehensive architectural solution, ACP continues to evolve in response to changing industry demands. With a continued focus on innovation, performance, and sustainability, ACP is set to play a vital role in the future of modern architecture and responsible construction.

ROAD AHEAD

Pioneer Journey

FOUNDATION & FIRST STEPS

2018

Established Pioneer Panels and laid a strong foundation with state-of-the-art manufacturing. Commercial production commenced, and our first ACP panels were successfully introduced to the market, marking the beginning of sales operations.

Earned key approvals and industry recognition, strengthening brand credibility and trust. During this phase, new product lines, series, and variants were launched, significantly expanding our portfolio and client base.

2021

APPROVALS, RECOGNITION & EXPANSION



**GROWTH,
SUSTAINABILITY &
SCALE**

2023

Enhanced logistics capabilities and customer service through regional depots, while expanding our presence across key markets. Sustainability initiatives were strengthened alongside nationwide reach, supporting scalable and responsible growth.

Production capacity was increased to meet growing demand, and the portfolio was further expanded with the launch of advanced architectural solutions including Louvers, Fins, and 3D Panels, setting the stage for future innovation and growth

2025

**NEW HEIGHTS &
VISION AHEAD**



Protection Film With Company Logo

FEVE/PVDF/Polyester Resin Based Coating

Primer Coating (used In Case Of PVDF Only)

Chromate Treated Aluminium Coil

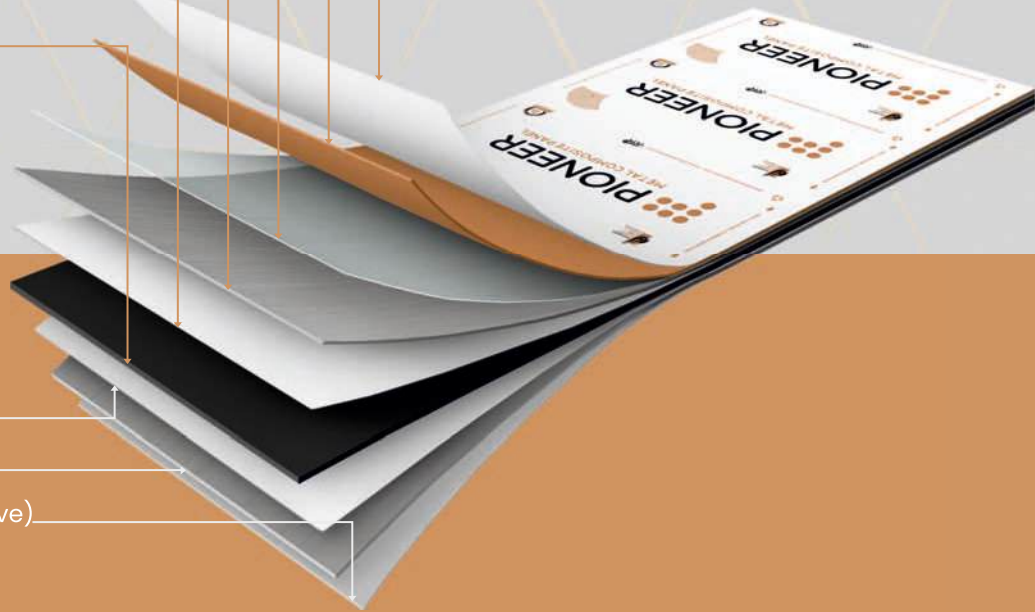
Adhesive Film

Polyethylene Core (LDPE)

Adhesive Film

Aluminium Coil

Service Coating (anti-corrosive)



UNDERSTANDING ALUMINIUM COMPOSITE PANEL

An ACP is engineered by bonding two thin aluminium sheets to a non-aluminium core using high-performance adhesives, forming a lightweight yet rigid composite panel suitable for both exterior façades and interior applications. This sandwich construction delivers superior flatness, strength, and weather resistance, making it a preferred material in modern architecture. To ensure protection during handling, transit, and installation, each panel is finished with a Surface Protective Film (SPF) that safeguards the coated surface from scratches and damage.

The Layers of the ACP are depicted above.

THE BASIC COMPONENTS OF ACP

Aluminium Coil — The Foundation of Superior Quality Panels

Aluminium coil is the core raw material behind every high-performance Aluminium Composite Panel (ACP), and its quality directly determines the durability, appearance, and long-term performance of the final product. At Pioneer Panels, we use only premium-grade pre-painted aluminium coils sourced from reputed mills, ensuring consistency, strength, and reliability in every batch.

Why Aluminium & Its Advantages

- Aluminium stands out among metal for ACP due to its exceptional balance of strength, light weight, corrosion resistance, and workability.
- With a density of just 2.7 g/cm³—nearly one-third that of steel—it significantly reduces the overall dead load on structures and makes handling faster and safer.
- Unlike steel, it does not rust, warp, or deteriorate under varying temperatures.
- Aluminium also provides excellent formability, allowing precise routing, bending, and fabrication without cracking—ideal for modern architectural applications.
- Additionally, it is 100% recyclable, aligning with global sustainability practices.

This versatility makes aluminium the preferred choice for façades, cladding, roofing, interiors, and transportation sectors

Aluminium Alloys & Alloys Used by Pioneer Panels

Aluminium coils are produced in different alloys, each offering specific strength and flexibility characteristics. Alloys from the 3000 and 5000 series are commonly used in ACP manufacturing due to their superior formability, weldability, and durability. These alloys ensure that the coil can withstand fabrication processes while maintaining long-term performance when installed.

Pioneer Panels uses high-quality alloys such as **AA1100**, **AA3003**, **AA3105**, and **AA5005**, known for their mechanical balance and long-term durability.

Common alloy compositions include:

AA1100: ~99% pure aluminium, excellent corrosion resistance, high workability—ideal for superior surface finish and flexibility.

AA3003: Aluminium with manganese (approx. 1.0% Mn), offering higher strength and good corrosion resistance, commonly used in façade-grade ACP.

AA3105: Aluminium with magnesium (0.3–0.8% Mg), combining formability with slightly higher strength and enhanced weather performance.

AA5005: Aluminium with magnesium (~0.8% Mg), known for excellent corrosion resistance, color retention, and superior mechanical properties—ideal for architectural applications.

Alloy	Si	Fe	Cu	Mn	Zn	Mg	Cr	Ti	Aluminium
AA 1100	0.95	0.95	0.05–0.20	0.05	0.1				99
AA 3003	0.6	0.7	0.05–0.20	1–1.5	0.1				96.5–99
AA 3105	0.6	0.7	0.3	0.3–0.8	0.4	0.2–0.8	0.2	0.1	96–98
AA 5005	0.3	0.7	0.2	0.2	0.25	0.5–1.1	0.1		97–98

ABBREVIATIONS

Si: Silicon	Fe: Iron	Cu: Copper	Mn: Manganese
Zn: Zinc	Mg: Magnesium	Cr: Chromium	Ti: Titanium

Premium Pre-Painted Coil Coatings

Pioneer Panels sources **pre-painted aluminium coils** coated with globally trusted paint systems such as **PVDF (Polyvinylidene Fluoride)** and **FEVE (Fluoroethylene Vinyl Ether)**. These coatings are applied through advanced coil-coating processes by accredited suppliers before the coils reach our plant.

PVDF Coating: With their high percentage of Kynar 500 resin, offer best-in-class protection against fading, chalking, and chemical exposure—making them ideal for exterior façades and harsh climates.

FEVE Coating: Offers high gloss retention, vibrant finishes, and excellent durability for both interior and exterior architectural use.

These coatings ensure that Pioneer panels remain visually striking for decades, even under continuous sun exposure.

The Pioneer Panels Advantage

By sourcing premium alloys, ensuring strict quality control, and using high-performance pre-painted coils, Pioneer Panels guarantees ACP products that deliver unmatched durability, aesthetic appeal, and long-term reliability. Our commitment to material excellence is reflected in every panel that leaves our factory.

02. Core

The core is the most critical component of an Aluminium Composite Panel, defining its performance, rigidity, weight, safety, and suitability for different applications. Sandwiched between two aluminium coils, the core material determines how the panel behaves under mechanical stress, fire exposure, and environmental conditions. Selecting the right core is essential for ensuring compliance with safety standards, durability, and long-term aesthetic stability in architectural projects.

LDPE Core – Standard Grade for General Applications

Low-Density Polyethylene (LDPE) core is the most commonly used material in standard ACP. LDPE is lightweight, flexible, and offers excellent bonding with aluminium, resulting in smooth flatness and ease of fabrication. LDPE core panels are widely used for interior cladding, signage, branding, and low-rise exterior façades where fire performance requirements are not stringent. Their cost-effectiveness makes LDPE ACP the preferred choice for budget-driven applications, although they offer limited fire-retardant properties.

Technical Characteristics:

- **Density:** ~0.91–0.93 g/cm³
- **Thermoplastic Behavior:** Softens at ~80–110°C, melts at ~120–130°C.
- **Mechanical Properties:** High elongation at break; low modulus compared to mineral cores.
- **Bonding:** Exhibits strong adhesion with aluminium when used with modified polymer adhesives.
- **Use Case:** Suitable for interior cladding, roofing sheets, signage, and low-rise external applications.
- **Limitation:** LDPE is inherently combustible and does not meet fire-safety requirements for regulated or high-rise buildings.

FR Core – Fire-Retardant Solution for Safer Structures

Fire-Retardant (FR) cores are engineered with mineral-filled compositions, typically consisting of a mixture of LDPE and high percentages of mineral fillers such as aluminum hydroxide (ATH) or magnesium hydroxide (MDH). These minerals release water molecules when exposed to heat, reducing flame spread, smoke emission, and overall fire load. FR-core ACPs comply with global fire standards such as BIS standards and EN 13501-1 Class B or A2 (depending on formulation). Such panels are ideal for commercial complexes, high-rise façades, airports, hospitals, schools, and any application where enhanced fire safety is mandatory.

A standard FR-B or FR-B1 core contains **70–80% mineral content**, while higher grades may contain even more.

Technical Function of Mineral Fillers:

- **Endothermic Reaction:** ATH and MDH release water vapor at elevated temperatures (ATH at ~200°C, MDH at ~330°C).
 - **Fire Suppression:** Reduces heat release rate (HRR), smoke generation, and prevents molten polymer dripping.
- Charring & Integrity:** Forms a protective residue, limiting flame spread.

03. Adhesive Film

Adhesive is one of the most critical elements in Aluminium Composite Panels, functioning as the structural bonding layer that permanently fuses the aluminium skins to the core. These engineered adhesive films are designed to endure mechanical stress, thermal expansion, environmental exposure, and continuous performance demands thus eliminating risks of separation or delamination throughout the panel's service life.

The high-performance adhesives used by Pioneer Panels offer exceptional shear strength, peel strength, and cohesive stability. Their chemistry ensures superior compatibility with both LDPE and mineral-filled FR cores, enabling uniform bonding without voids, bubbles, or interface failures. This results in consistent structural integrity under heat, humidity, dynamic loads, and long-term ageing.

In essence, the adhesive acts as the hidden backbone of ACP technology, ensuring strength, stability, and safety compliance. A robust bonding layer not only reinforces the composite but also enhances durability, reliability, and the overall lifespan of every Pioneer Panel, making our products structurally sound and built to perform for years.

04. Surface Protective Film (SPF)

Surface Protective Film (SPF) is used as temporary surface protector and once the ACP sheet is installed, it should be removed as soon as possible. It prevents scratches, dust, and surface damage during handling, transport, and installation. Pioneer Panels uses **high-micron, premium SPF** designed to resist tearing and withstand fabrication processes such as cutting, routing, and bending.

Available in rubber-based and liquid-based adhesive systems, our SPF ensures **strong adhesion with zero glue transfer**, keeping PVDF and FEVE coated surfaces clean and unaffected even after prolonged application. The film also protects panels from environmental exposure and mechanical abrasion while being easily peel able when required. SPF also supports directional printing for identification, brand communication, and installation guidance.

In essence, SPF maintains the aesthetic and surface integrity of every ACP sheet, ensuring that it reaches the site in perfect condition, ready for flawless installation.



What sets our facility apart is our culture of continuous improvement. We consistently invest in upgrades be it machinery, processes, or sustainability practices to remain aligned with domestic demand as well as global standards. This future-ready approach ensures that Pioneer Panels doesn't just keep pace with industry growth, but actively shapes its direction

Our Gujarat plant is not just a place of production it is where innovation, technology, and commitment converge to create panels that build the skyline of tomorrow.

01. Granule Mixer

In the beginning, the LDPE and HDPE Granules are mixed in an accurate ratio. The mixture is processed in the Dryer.

02. Extruder

Later in the Extruder, where the Granules are melted and eliminate unwanted elements. Correct temperature is maintained in the Extruder to give the accurate shine and flow to the PE core.

03. Calendar Unit

In the Calendar unit, the melted granules culminate into PE core.

04. Adhesive Unit

The tested Adhesive film is now pasted on both sides of the core in the adhesive unit before they are forwarded into the un-coiler unit.

05. Un-coiler unit

Unit where the top and bottom aluminium coils are securely loaded and positioned for continuous feeding. This unit ensures smooth, controlled uncoiling of pre-painted coils, maintaining tension, alignment, and surface integrity as they move toward bonding with the core.

06. Composite unit

Under the composite unit, at a particular controlled high temperature, coloured coils are now fixed on both sides of the core.

Note : After providing optimum strength through compounding roll at composite unit, the 'Quality Inspector' checks the quality of the ACP sheets being manufactured to assure defect free production.

07. Cooling Chamber

This is followed by the Cooling Process.

08. Printer Unit

Soon after, a Protective film is pasted on the ACP sheets in the printer unit. This film provides a safeguard against transportation and installation damages.

09. Cutter Unit

At the cutter unit, the ACP sheets are cut in appropriate required sizes.

Note : Finally, the product is tagged and prepared for dispatch.



Plant & Facilities

State-of-the-Art Manufacturing Facility

At Pioneer Panels, we take pride in our advanced manufacturing facility located in Gujarat the true backbone of our operations. Spanning over 11,365 sq. meters, our plant is built to deliver excellence at scale, with an impressive annual production capacity of 3 million sq. meters. This makes us one of the fastest-growing manufacturers of Metal Composite Panels in India, trusted by architects, builders, and developers nationwide.

Our facility is powered by cutting-edge German precision machinery, ensuring flawless production standards and consistency in every panel we create. Each panel undergoes meticulous processing, where technology and craftsmanship come together to achieve perfect alignment, smooth finishes, and durability that stands the test of time.

To maintain uncompromising standards, we have a dedicated in-house quality control laboratory. Here, our expert team conducts rigorous mechanical, chemical, and fire property testing at every stage of production. From raw material inspection to the final panel, every batch is verified to meet both national and international benchmarks for safety, strength, and performance.

Efficient delivery is just as important as manufacturing excellence. That's why our facility is supported by a robust logistics and warehousing system that enables smooth storage, handling, and dispatch. With strategically designed distribution channels, we ensure on-time delivery across every corner of India, helping projects stay on schedule without compromise.



WHY PIONEER PANELS FORBID FIRE PANELS

More than ever, buildings of the future are expected to go beyond exceptional design and meet stringent technical requirements such as sustainability, energy efficiency, and above all, fire protection. With the rapid expansion of high-rise developments, commercial complexes, transit infrastructure, and high-footfall public spaces, fire safety has become a decisive factor in façade design and material selection. Cladding systems play a crucial role in controlling the spread of fire, heat, and smoke during emergency situations, directly impacting occupant safety and structural integrity.

In this evolving regulatory and safety landscape, **PIONEER FORBID FIRE ACP** sets new benchmarks for cladding materials by combining architectural versatility with **certified and proven fire-retardant performance**. Pioneer's FFP Sets are specifically engineered to **reduce flame propagation, limit heat release, and minimize smoke generation**, thereby enhancing occupant safety and giving crucial evacuation time during fire incidents. At Pioneer Panels, fire safety is not treated as an option—it is designed into the core of the product.

WE ARE INTERESTED IN FIRE RETARDANCY, NOT FIRE RATING

- FR stands for Fire RETARDANCY or Fire RETARDANT
- Many people use Fire RATED
- Anything is fire rated, even combustible materials, e.g., paper, most plastics, etc.
- Any material's fire rating can be assessed
- Only a material rated as "fire retardant" or "non-combustible" is actually of help in case of a fire.

Applications Where FR ACPs Are Essential

Fire Retardant ACPs are strongly recommended—and often mandated—for installations in:

- Airports & metro stations
- Malls & multiplexes
- Educational institutions
- High-rise residential towers
- Hospitals & healthcare facilities
- IT parks & corporate offices
- Government buildings
- Hotels & convention centres

In such environments, material failure during fire can have severe consequences. FR ACPs help mitigate these risks while maintaining architectural freedom.

Key Advantages

- Enhances occupant safety in emergency situations
 - Reduces risk of rapid fire escalation
 - Supports safer evacuation and rescue operations
 - Builds trust with regulatory authorities and project stakeholders
- Aligns with modern fire safety codes and building norms

For government and institutional projects, FR panels also ensure **long-term liability reduction and compliance assurance.**

Understanding Fire Retardant ACP Technology

Fire Retardant ACPs differ fundamentally from conventional panels due to their specialized **core composition**. Unlike standard LOPE cores, FR panels use a **mineral-filled core**, containing a high percentage of inorganic, non-combustible materials such as aluminium hydroxide

These minerals play a vital role during fire exposure by:

- Releasing water molecules at high temperatures, which cools the surface
- Diluting flammable gases
- Acting as a thermal barrier that slows flame spread

The aluminium skins further contribute by shielding the core and delaying heat penetration. When combined with **high-performance adhesive systems and PVDF/FEVE-coated aluminium coils**, the result is a panel that offers both **aesthetic flexibility and enhanced fire resistance**.

Key Fire Performance Characteristics of FR ACPs

Fire Retardant panels are designed to perform reliably under fire conditions and are evaluated against stringent standards. Key performance aspects include:

- Fire-resistant mineral core in two layers of aluminum sheets in high strength.
- No emission of harmful gases during fire. Does not produce toxic gases which are responsible for causing deaths to the tune of 80%.
- No blurring of vision makes it easier for people to get away from fire.
- Does not release excessive heat onto other materials that can cause fire to spread. This prevents the spread of fire to other floors.
- Does not melt into flaming droplets.
- Does not come off the facade when the building is doused with water.
- Light and easy to fabricate material for exterior cladding.
- No aluminum peel off from the fireproof core.

These characteristics make FR ACPs suitable for **high-risk and high-occupancy applications**.

Compliance with National & International Fire Standards

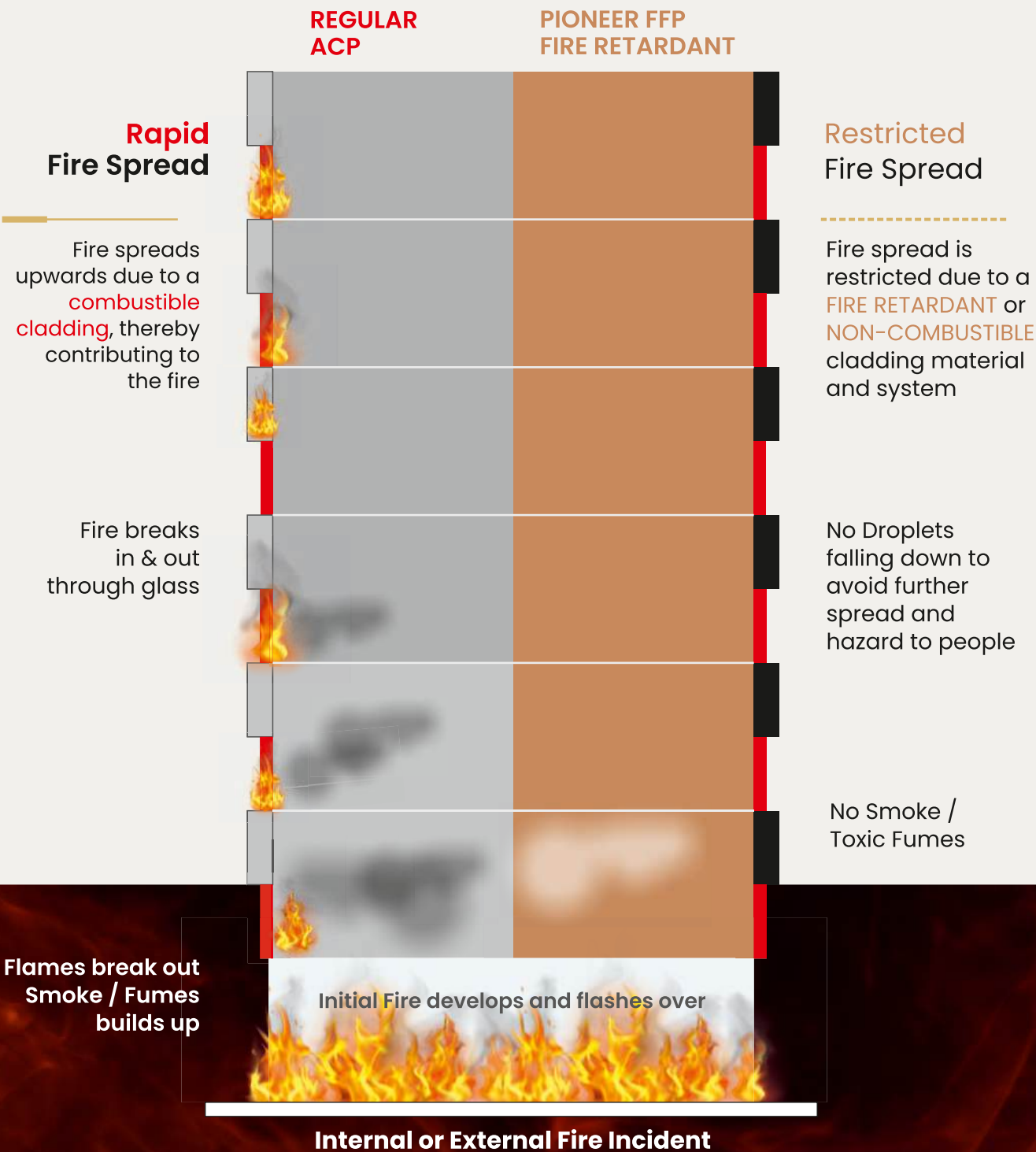
At Pioneer Panels, FR ACPs are developed to meet and exceed recognized fire safety benchmarks. Our products are tested and evaluated as per:

- BIS 17682 (India)
- EN 13501 Standards (Europe)
- NFPA 285 (USA)
- BS 476 (Britain)
- DIN 1402 (Germany)
- ASTM Standards (USA)

Regular testing ensures consistent compliance across production batches. Fire performance validation is supported by **documented test reports, traceability records, and third-party certifications**, providing confidence to government authorities, consultants, and end users.

fire behavior in a building

While glass breakage/fallout allows fire to enter/exit, cladding allows/prevents spread



Understanding Most Common Requested Qualifications

It is key to choose the right product and system in terms of performance in case of fire. But it is equally important to specify the right test methodology and standards to ensure selection of a 'true' Fire Retardant facade.



BIS 17682:2021

This standard defines the fire performance requirements and testing criteria for Fire Retardant Aluminium Composite Panels used in building cladding to limit flame spread, heat release, and smoke generation.

Indian Acceptance Criteria		
Fire Behaviour	Standard	Crtieria
Overall	BIS 17682:2021	Grade 3/4/5
Flame Height	IS 15061	Flame Height in 60s < 150mm
Flame Spread	IS 12777	Flame Spread in 90s < 125mm
Total Heat Release in 1st 600 Secs	IS 1350	THR600s ≤ 3 MJ
Change in Temprature of Surface	IS 3808	≤ 50 Degrees
Change in Mass	IS 3808	≤ 50 %



EN13501-1

This standard that classifies construction products based on their reaction to fire performance, including flame spread, heat release, smoke production, and flaming droplets, providing a standardized fire safety rating system for building materials.



European Union Acceptance Criteria

Fire Behaviour	Standard	Crtieria
Overall	EN 13501-1	Class B, S1, do
Flame Spread	EN 11925-2	Flame Height in 60s < 150mm
Flaming Droplets	EN 11925 - 2 & EN 13823	
Fire Growth Rate	EN 13823 - s1	FIGRA ≤ 120 W/s
Total Heat Release in 1st 600 Secs		THR600s ≤ 7.5 MJ
Smoke Growth Rate		SMOGRA ≤ 30 m ² /s ²
Lateral Flame Spread specimen		LFS < edge of the
Total Smoke Produced in 1st 600 Secs		TSP600s ≤ 50 m ²

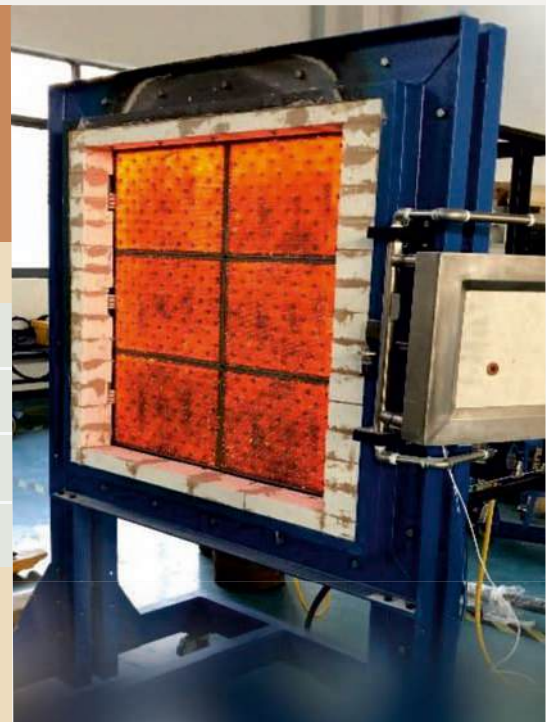
BS 476

This standard that specifies test methods for assessing the fire propagation and surface spread of flame characteristics of building materials to evaluate their fire performance and safety.

British Fire Standards

Fire Behaviour	Standard	Crtieria
Overall	BS 476	Class 0
Fire Propagation Index (I)	Part 6	Overall I < 6
Fire Spread on Surface	Part 7	< 165 mm for Class 1

In Part 7, the product is evaluated for delamination and melting during flame spread testing. If the product exhibits any of these behaviors, a "Y" is added to the classification, indicating that these characteristics were observed.



NFPA 285

This test method evaluates the inclusion of combustible components within wall assemblies/panels that are required to be of noncombustible construction. Its a simulation of the multistory flammability fire performance of entire exterior wall assemblies.

American Acceptance Criteria	
Fire Behaviour	Standard
Fire Behaviour	Standard
Overall	NFPA 285
Vertical Flame Spread	Not more than 10 ft
Horizontal Flame Spread	Not more than 05 ft
Flame on Second Floor	No Flame
Flame spread between intersection and side wall	No spread
Other Temperature Related Criteria	Less than 1000 degrees Fahrenheit
The overall test is for conducted for 30 mins followed by 10 min observation period.	



Why Choose **Pioneer** Panels?



Our Unique Edge in the Industry



Proven Expertise – 30+ years of collective industry experience and a legacy of rapid growth across India.



Uncompromised Quality – State-of-the-art German technology, ISO-certified facilities, and 50+ tests for each material backed by an in-house lab.



Innovative Product Range – 20+ series, 300+ finishes, and solutions like ACP, Louvers, Fins, 3D Panels & more.



Sustainability at Core – 500 KW solar power, rainwater harvesting, recycling practices, and eco-certified products.



Trusted Certifications – BIS, EIL, CPWD, IGBC, SGS, Shriram Institute & more.



Strong Nationwide Presence – PAN India dealer network with multiple depots for fastest-in-class service.



Customer-Centric Approach – Customization options, tailored solutions, and reliable after-sales support.



Durability & Safety – Fire-retardant options, low-maintenance finishes, and use of high-strength 3000 series alloys.



Affordable Excellence – Premium quality at competitive prices, delivering lasting value

BIS Certification

Aluminium Composite Panels (IS 17682:2021)

The Standard Mark: Your Guarantee of Conformity

At Pioneer Panels, we are committed to delivering the highest quality Aluminium Composite Panels (ACPs), and our adherence to the Bureau of Indian Standards (BIS) certification under IS 17682:2021 stands as a testament to this commitment. This certification ensures that every panel we manufacture meets the most stringent national and international benchmarks for quality, safety, and reliability.



Why BIS Certification Matters: A Foundation of Trust and Excellence



Quality Assurance & Reliability

Certified products undergo stringent testing and continuous surveillance, ensuring consistent quality and long-term performance throughout the product lifecycle.



Assurance for Professionals

Architects, builders, and clients are assured of consistent performance, uncompromising safety, and exceptional durability.



Verified Fire & Performance Standards

BIS certification validates fire behaviour, mechanical strength, dimensional stability, and weather resistance under Indian climatic conditions.



Investment in Reliability

Choosing BIS-certified products means investing in materials that delivers durability, safety, and performance—providing true value for public and private investment.



IS 17682 : 2021



Safety in High-Footfall Areas

ACPs are widely installed in airports, metro stations, malls, hospitals, educational institutions, and government buildings where public safety is critical. BIS-certified materials reduce fire risk and structural hazards in such high-occupancy environments.



Long-term Performance

Our panels will perform as expected over their lifespan, contributing to the structural integrity and aesthetic appeal of any building.



Uniform Standards Across Projects

BIS certification promotes standardization across projects, ensuring consistency in quality, safety, and execution nationwide.

Key Parameters Tested under BIS: A Comprehensive Assessment of Quality

Our ACPs undergo a rigorous inspection and testing regimen as per the BIS Product Manual, covering a wide array of critical parameters. This comprehensive testing ensures that every aspect of our panels, from their physical dimensions to their fire retardant properties, meets the specified standards.

Dimensions & Flatness.

Mechanical Properties:

These tests evaluate the structural integrity and resilience of our ACPs. This includes:

- Density
- Tensile Strength
- Yield Strength
- Elongation
- Peel Strength
- Surface Coating
- PVDF Coating Thickness
- Adhesion
- Pencil Hardness
- Gloss
- Chemical Resistance

Fire Retardance:

Safety is a top priority. Our ACPs are rigorously tested for their fire performance characteristics, with specific grading for different levels of fire resistance. This includes:

- Limiting Oxygen Index (LOI)
- Smoke Density
- Ignitability
- Flame Spread
- Non-combustibility

Durability Tests:

To ensure long-term performance, our panels undergo accelerated aging tests:

- Accelerated Weathering
- Humidity & Salt Spray Resistance
- Sound Transmission
- Sound Absorption
- Thermal Conductivity & Expansion

Scope of License: Versatility to Meet Every Need

Our BIS license encompasses a broad range of specifications, demonstrating the versatility of our Aluminium Composite Panels to cater to diverse project requirements:

Grade	Description	Product Group
Grade 1	External Grade with LDPE Core	4PPR
Grade 2	Internal Grade with LDPE Core	4PPR1 & 3PPG & 4PPR6 & 3PPO
Grade 3	External Grade with Mineral Core (Fire Retardant ACP)	4PPR-FFP Sets
Grade 4	Internal Grade with Mineral Core (Fire Retardant ACP)	4PPR1-FFP Sets & 3PPG-FFP Sets
Grade 5	Mineral Core (Fire Retardant ACP - A2)	4PPR-FFP Settle
Grade 2S	Signage Grade LDPE Core ACP	4PPR6

BIS Certification & Regulatory Compliance

Ensuring Safety, Performance & Public Trust



Certified as per BIS 17682
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Certificates

Pioneer Panels' ACP Sheets are produced using high quality raw materials under Quality Assurance (QA), Quality Control (QC) and management standards, which earned us various certifications such as BIS, ISO 9001 and ISO 14001.





Certificate of Compliance



We hereby declare that the technical file of product complied with the requirement of Directives **The low voltage directive (LVD) (2014/35/EU)**

Certificate No.: CE-6220

Name : PIONEER PANELS

Address : SURVEY NO. 718/1/A/1/1, VILLAGE: KHATTALWADA, TAL: UMBERGAON, DIST: VALSAD - 396120. GUJARAT, INDIA

Product : ALIUMINIUM COMPOSITE PANELS

Complies with the requirements applicable to it

The quality system file has been assessed, approved and is subject to continuous surveillance according to the Council Directive on **The low voltage directive (LVD) (2014/35/EU)**

This certificate is issued under the following conditions:

1. It applies only to the quality system maintained in the manufacture of above referenced models and it does not substitute the design or type-examination procedures, if requested
2. The certificate remains valid until the manufacturing conditions or the quality systems are changed
3. The certificate validity is conditioned by positive results or surveillance audits.

The CE mark as shown above can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of conformity and compliance with all relevant EC Directives. The statement is based on a single evaluation of one sample of above mentioned product. It does not imply an assessment of the whole production.

Validity of this certificate can be verified at www.eurocertverify.com

Date of Certification	16th November 2024
1st Surveillance Audit Due	15th November 2025
2nd Surveillance Audit Due	15th November 2026
Certificate Expiry	15th November 2027

Authorised Signatory



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International House, 10 Churchill Way, Cardiff, United Kingdom, CF10 2HE

Website:- www.eurocertverify.com, Email:- info@eurocertverify.com

Company No. 11956886



Certificate of Registration

This is to certify that

PIONEER PANELS

SURVEY NO. 718/1/A/1/1, VILLAGE: KHATTALWADA, TAL:
UMBERGAON, DIST: VALSAD - 396120. GUJARAT, INDIA

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 9001:2015

Quality Management System

For the following scope of activities:

**MANUFACTURING, MARKETING AND EXPORT OF ALIUMINIUM
COMPOSITE PANELS**

Date of Certification: 16th November 2024
1st Surveillance Audit Due: 15th November 2025

2nd Surveillance Audit Due: 15th November 2026
Certificate Expiry: 15th November 2027

Certificate Number: 305024111608Q



Chauhan
Head of Certification

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India Office : QRO Certification LLP

142, 11nd Floor, Avtar Enclave, Near Paschim Vihar West Metro Station, Delhi-110063, (INDIA)
Website : www.qrocert.org, E-mail : info@qrocert.org



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UMBERGAON, DIST: VALSAD - 396120. GUJARAT, INDIA

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ISO 14001:2015

Environmental Management System

For the following scope of activities:

**MANUFACTURING, MARKETING AND EXPORT OF ALIUMINIUM
COMPOSITE PANELS**

Date of Certification: 16th November 2024

2nd Surveillance Audit Due: 15th November 2026

1st Surveillance Audit Due: 15th November 2025

Certificate Expiry: 15th November 2027

Certificate Number: 305024111609E



Chunam...
Head of Certification

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Website : www.grocert.org, E-mail : info@grocert.org



Certificate of Registration

This is to certify that

PIONEER PANELS

SURVEY NO. 718/1/A/1/1, VILLAGE: KHATTALWADA, TAL:
UMBERGAON, DIST: VALSAD - 396120. GUJARAT, INDIA

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 45001:2018

Occupational Health and Safety Management System

For the following scope of activities:

**MANUFACTURING, MARKETING AND EXPORT OF ALIUMINIUM
COMPOSITE PANELS**

Date of Certification: 16th November 2024

2nd Surveillance Audit Due: 15th November 2026

1st Surveillance Audit Due: 15th November 2025

Certificate Expiry: 15th November 2027

Certificate Number: 305024111610HS



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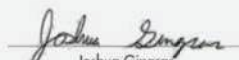
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PIONEER PANELS

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produce coatings containing a minimum 70%
KYNAR 500® PVDF resin for the years 2022.*




Joshua Gingras
NA Coatings Business Manager



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JIANGSU METCOPLUS INDUSTRY INTL CO., LTD

CERTIFICATE

THIS IS TO CERTIFY THAT
PIONEER PANELS IS USING COILS
WHICH ARE COATED WITH Kynar
500 PVDF Resin BY US. AS we are
licenses applicator of Kynar 500 PVDF
resin and supplying Kynar 500 PVDF
resin coated coils regularly to
PIONEER PANELS, INDIA. A
certificate of Kynar 500 is Attached
herewith.

Date: 15-03-2022



ADD: 8602 6F Future Wealth Building, No.3 Wangxi Road, Yanghe Town, Zhangjiagang, Jiangsu, China

Tel: +86-512-5818891 Fax: +86-512-5818890 www.metcoplus.com



**TEST REPORT****Report No. : MAN:TR:9530020842****DATE : 05/02/2019****PIONEER PANELS**KHATA NO. 1929, SURVEY NO. 718/1/A/1/1
VALSAD-396171

IN

CONTACT PERSON : MR.SUNIL MEHTA
THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :
SAMPLE DESCRIPTION 4 MM .5 - ALUMINIUM COMPOSITE PANEL, CODE PA04 RICH WHITE
OEM RAILWAYS
COUNTRY OF ORIGIN INDIA
SAMPLE RECD ON 20/11/2018
TEST(S) REQUESTED FLAMMABILITY TEST
TESTING PERIOD : 21/01/2019 - 01/02/2019**FLAMMABILITY TEST :****Test conducted :**

This test was conducted as per DIN 4102-15:1990 DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2, and Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials.

Sample details :

Sample Description	Aluminium composite panel
Color	White
Density	About 1853 kg/m ³
Size of sample	1000mm×190mm & 190mm×90mm

Test condition : Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2 °C, and a relative humidity of 50 ± 6 %.

Classification : The tested sample meets class B1 building materials requirements of DIN 4102-1 (May 1998).

JOE No. : 1853804611

Page 1 of 5

Control No.:9535023200

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TEST REPORT

Report No. : MAN:TR:9530020842

DATE : 05/02/2019

Observation : "Brandschacht" Test according to DIN 4102-15 &16

Exposed surface: The grey face

Results of "Brandschacht" Test (part 1)						
Line No.		Unit	Test assemblies No.			
			A	B	C	D
1	Specimen fixings according to DIN 4102 part 15,table	-				
2	Max. flame height above lower sample edge;	cm	30			
3	Time ¹⁾	min:s	00:06			
	<u>Melting/burning through</u>		NO			
4	Time ¹⁾	min:s	/			
	<u>Back of specime_n</u>		NO			
5	Flaming/glowing, Time ¹⁾	min:s	/			
6	Discolouring, Time ¹⁾	min:s	/			
	<u>Burning droplets</u>		NO			
7	Begin ¹⁾	min:s	/			
	<u>Amount</u>		/			
8	Specimen material falling off in separate droplets		/			
9	Specimen material falling off continuously		/			

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TEST REPORT

Report No. : MAN:TR:9530020842

DATE : 05/02/2019

Results of "Brandschacht" Test (part 2)						
Line No.		Unit	Test assemblies No.			
			A	B	C	D
	<u>Burning parts</u>		NO			
10	Begin ¹⁾	min:s	/			
11	Parts of sample falling off separately		/			
12	Parts of sample falling off continuously		/			
13	Duration of continued combustion on mesh base (max.)	min:s	NO			
	<u>Burner flame impairment by dripping/falling material</u>		NO			
14	Time ¹⁾	min:s	/			
	<u>Premature ending of test</u>		/			
15	End of burning at specimen ¹⁾	min:s	/			
16	Time when test terminated (if applicable) ¹⁾	min:s	/			
	<u>Burning after end of test</u>		NO			
17	Duration	min:s	/			
18	Number of specimens		/			
19	Front of specimen		/			
20	Back of specimen		/			
21	Height of flame	cm	/			
	<u>Glowing after end of test</u>		NO			
22	Duration	min:s	/			
23	Number of specimens		/			
24	Front of specimen		/			
25	Back of specimen		/			
26	Top half of specimen		/			
27	Bottom half of specimen		/			

Results of "Brandschacht" Test (part 3)						
Line No.		Unit	Test assemblies No.			
			A	B	C	D
	<u>Residual length</u>		/			
28	Single results	cm	74 78			
			76 72			
29	Average of the single results	cm	75			
	<u>Smoke temperature</u>		/			
30	Max. of average	°C	153.2			
31	Time ¹⁾	min:s	06:48			

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TEST REPORT

Report No. : MAN:TR:9530020842

DATE : 05/02/2019

Note: ¹⁾ time from start of testing

*Reduction in number of test (DIN 4102 Part 16, clause 5.2)

Class B1 materials:

If the residual length measured after the first test is 45cm or greater, further tests are not required.

Normal Flammability Test according to DIN 4102-1 Clause 6.2

Edge ignition

Fire application time: 15s

Parameter	Lengthwise				
	1	2	3	4	5
Whether or not flaming extinguished before reach the gauge mark(Yes/No)	Yes	Yes	Yes	Yes	Yes
Whether or not flaming reach the measuring mark within 20 seconds(Yes/No)	No	No	No	No	No
Time for the flame tip to reach the gauge mark(s)	NA	NA	NA	NA	NA
Afterflame time (s)	0	0	0	0	0
Max. flame height (cm)	2	2	2	2	2
Molten dripping(Yes/No)	No	No	No	No	No
Smoke developments (visual impression)	Slight				

Note: NA---Not applicable

DIN 4102-1:1998 Criteria for classification

1) All materials, except flooring, may be classed as **B1** materials if they meet the following requirements a) and b):

a) The test using the 'Brandschacht' apparatus described in DIN 4102-15 (cf. subclause 6.1.3.1) shall be deemed passed if

– The mean value for the residual length (portion of specimen that has not burned or charred; cf. subclause 9.1 of DIN 4102-16) of each specimen is at least 15 cm and no individual values are lower than 0 cm,

– The mean effluent temperature does not exceed 200 °C in any test,

– The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.

b) Pass DIN 4102-1: 1998 sub-clause 6.2.3 Ignitability Test if

For each specimen, flaming doesn't reach the gage mark within 20s after flame application.

2) Materials may be classed as **B2** materials if they pass the ignitability test specified in DIN 4102-1: 1998 subclause 6.2.5.

For each specimen, flaming doesn't reach the gage mark (150mm marks) within 20s after flame application.

3) Combustible materials which cannot be classed as B1 or B2 materials shall be classed as **B3** materials.

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TEST REPORT

Report No. : MAN:TR:9530020842

DATE : 05/02/2019

STATEMENTS:

This test report does not replace any mandatory certification of the product that may be required.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

Photo Appendix:



Note : Test performed as per the conditions given by the client.
Above test is subcontracted to SGS China lab.

***** End of Report*****

Per Pro SGS India Private Ltd

Authorized Signatory

Lalit Raheja
(Asst. Manager)

Email your Test Report Related Enquiries at Feedback.trp@sgs.com

JOE No. : 1853804611

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TEST REPORT

Page 1 of 2

Test Report No.	: ERL/2022-23/3000028003A	Date: 02/03/2023
ULR Number	: ULR-TC508523300000040F	
Discipline	: Chemical	
Group	: Plastic and Resins	

1.	SO No.	: 3000028003
2.	Customer's Name	: PIONEER PANELS
3.	Customer's Address	: KHATA NO. 1929, SURVEY NO. 718/1/A/1/1, KHATALWADA UMBERGAON, VALSAD, GUJARAT -396171
4.	Letter reference and date	: E-mail dated:27-JAN-2023
5.	Kind Attention	: Mr. Sunil Mehta
6.	Service requirements	: Testing of material to determine the Horizontal Burning Rate as per IS: 15061-2002 Clause 3.2 Annex A
7.	No. of Samples	: 01.
8.	No. of pages	: 02.
9.	Test Report Prepared By	:

10.	Test Report Verified By	:
11.	Test Report Approved By	:



H. L. KHANDASKAR
CHEMIST

Ms. R. R. NAIK
MANAGER

M. A. BAWASE
GENERAL MANAGER

Place of Issue: PUNE

Date of Issue: March 2, 2023

DISCLAIMER:

This test report pertains only to the components / parts / assemblies / vehicles etc. actually tested at ARAI in the presented condition based on the documents / information produced / submitted by the customer. The issuance of this test report alone does not indicate any measure of approval, certification, supervision, control of quality surveillance by ARAI of the product. No extract, abridgement or abstraction from this test report shall be published or used to advertise the product without the written consent of the Director, ARAI, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought. ARAI is in no way responsible for any misuse of copying of any design / type / system in connection with entire vehicle / components / parts and assemblies. Breach of any statutory provision of Indian laws or laws of other countries, will be the sole responsibility of the customer and ARAI shall not be liable for any claims or damages, made by the party, whatsoever, the customer shall alone be liable for the same, and undertakes to indemnify ARAI in this regard. Further, the ARAI has the right to initiate cancellation / withdrawal of the certificate issued, in case of any fraud, misrepresentation, when it surfaces and comes in the knowledge of ARAI. The appropriate local courts at Pune shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report. ARAI will preserve the tested samples for a period of ONE month from the date of issue of the test report. Queries, if any, regarding the sample or the test report, will be entertained / attended to in this stipulated period of ONE month only. Further, all the related test standards, drawings supplied by customer, letters, e mails etc. exchanged with respect to this test work will be preserved in our custody for a span of only THREE years from the date of the test report.



TC-5085

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ARAI Homologation & Technology Centre (ARAI-HTC), Chakan
ARAI Forging Industry Division (ARAI-FID), Chakan
ARAI Regional Centre South (ARAI-RCS), Chennai

TEST REPORT

Customer's Name	: PIONEER PANELS
Service requirement	: Testing of material to determine the Horizontal burning rate as per IS: 15061-2002 Clause 3.2 Annex A
Sample Received date	: 01/03/2023
Condition of Sample	: Sample received in good condition
Sampling	: Sampling done by customer
Date Sampled	: Not applicable

1.0 Sample Details as submitted by customer:

Material Manufacturer's Name	: PIONEER PANELS
Material Type	: ALUMINIUM COMPOSITE PANELS
Component Part No. and Batch No.	: N006221150PP1062
Identification Code	: 4PPR PA006

2.0 Horizontal Burning Rate as per IS: 15061-2002; Clause 3.2 Annex A

2.1 Observation Table: The sample under test is Isotropic.

	Temperature (°C) Max to Min	Relative humidity (%) Max to Min	Soak duration (hrs) Date of test
Soaked condition	27	65	24 hrs 02/03/2023
Test condition	27 to 26	68 to 64	---
Wire attached frame used	No	Test specimen Dimension	Average: 356 X 100 X 04 mm

Sr. No.	Test Description	Specified Requirement	Observations			
1.	Horizontal Burning Rate, mm/minute as per IS: 15061-2002, Clause 3.2, Annex. A	The result of the test shall be considered satisfactory if, taking the worst test results into account, the horizontal burning rate is not more than 100 mm/minute. OR If the flame extinguishes before reaching the last measuring point.	Test Piece	Burnt Time, Sec	Distance Burnt, mm	Burning rate, mm/min
			1	-	-	0
			2	-	-	0
			3	-	-	0
			4	-	-	0
			5	-	-	0
			(Please refer Typical Photograph below)			
2.	Remark	Sample under test meets Horizontal Burning Rate requirement when tested as per; IS: 15061-2002, clause 3.2 Annex A.				

TYPICAL PHOTOGRAPH

Sample Before test



Sample After test



Test Report Prepared By

H. L. Khandaskar
02/03/23

H. L. KHANDASKAR
CHEMIST

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Test Report Verified By

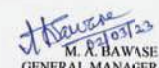
Ms. R. R. Naik
02/03/2023

Ms. R. R. NAIK
MANAGER

----End of Test Report----

TEST REPORT

Page 1 of 3

1. Test Report No.	: ERL/2022-23/3000028003B	Date: 02/03/2023
2. SO No.	: 3000028003	
3. Customer's Name	: PIONEER PANELS	
4. Customer's Address	: KHATA NO. 1929, SURVEY NO. 718/1/A/1/1, KHATALWADA UMBERGAON, VALSAD, GUJARAT -396171	
5. Letter reference and date	: E-mail dated:27-JAN-2023	
6. Kind Attention	: Mr. Sunil Mehta	
7. Service requirements	: Testing of material to determine Vertical Burning Rate of Materials as per IS: 15061-2002 Clause 3.3 Annex B and melting behaviour as per IS: 15061-2002, Clause 3.4, Annex C.	
8. No. of Samples	: 01.	
9. No. of pages	: 03.	
10. Test Report Prepared By	:	 H. L. KHANDASKAR CHEMIST
11. Test Report Verified By	:	 Ms. R. R. NAIK MANAGER
12. Test Report Approved By	:	 M. A. BAWASE GENERAL MANAGER
Place of Issue: PUNE Date of Issue: March 2, 2023 DISCLAIMER: This test report pertains only to the components / parts / assemblies / vehicles etc. actually tested at ARAI in the presented condition based on the documents / information produced / submitted by the customer. The issuance of this test report alone does not indicate any measure of approval, certification, supervision, control of quality surveillance by ARAI of the product. No extract, abridgement or abstraction from this test report shall be published or used to advertise the product without the written consent of the Director, ARAI, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought. ARAI is in no way responsible for any misuse of copying of any design / type / system in connection with entire vehicle / components / parts and assemblies. Breach of any statutory provision of Indian laws or laws of other countries, will be the sole responsibility of the customer and ARAI shall not be liable for any claims or damages, made by the party, whatsoever, the customer shall alone be liable for the same, and undertakes to indemnify ARAI in this regard. Further, the ARAI has the right to initiate cancellation / withdrawal of the certificate issued, in case of any fraud, misrepresentation, when it surfaces and comes in the knowledge of ARAI. The appropriate local courts at Pune shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report. ARAI will preserve the tested samples for a period of ONE month from the date of issue of the test report. Queries, if any, regarding the sample or the test report, will be entertained / attended to in this stipulated period of ONE month only. Further, all the related test standards, drawings supplied by customer, letters, e mails etc. exchanged with respect to this test work will be preserved in our custody for a span of only THREE years from the date of the test report.		

An ISO 9001, ISO 14001, ISO 45001 and ISO/IEC 27001 Certified Organization

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Kothrud, Pune - 411 038 (India).
P. B. No. 832, Pune - 411 004 (India)

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E-mail : director@araiindia.com, Website : www.araiindia.com

ARAI Homologation & Technology Centre (ARAI-HTC), Chakan
ARAI Forging Industry Division (ARAI-FID), Chakan
ARAI Regional Centre South (ARAI-RCS), Chennai

TEST REPORT

Customer's Name	: PIONEER PANELS
Service requirement	: Testing of material to determine Vertical Burning Rate of Materials as per IS: 15061-2002 Clause 3.3 Annex B and melting behaviour as per IS: 15061-2002, Clause 3.4, Annex C.
Sample Received date	: 01/03/2023
Condition of Sample	: Prepared Sample received in good condition
Sampling	: Sampling done by customer
Date Sampled	: No. applicable

1.0 Sample Details as submitted by customer:

1.0 Sample Details as submitted by customer:	
Material Manufacturer's Name	: PIONEER PANELS
Material Type	: ALUMINIUM COMPOSITE PANELS
Component Part No. and Batch No.	: N006221150PP1062
Identification Code	: 4PPR PA006

2.0 Vertical Burning Rate as per IS: 15061-2002 Clause 3.3 Annex B.

2.1 Observation Table: The sample under test is Isotropic.

2.1 Observation Table: The sample under test is Isotropic.			
	Temperature (°C) Max to Min	Relative humidity (%) Max to Min	Soak duration (hrs) Date of test
Soaked condition	27	65	24 hrs 02/03/2023
Test condition	27 to 25	65 to 63	---
---	---	Test specimen Dimension	Average: 560 X 170 X 4 mm

Sr. No.	Test Description	Specified Requirement	Observations			
1.	Vertical Burning Rate, mm/minute as per IS: 15061-2002, Clause 3.3, Annex. B.	The result of the test shall be considered satisfactory if, taking the worst test results into account, the vertical burning rate is not more than 100 mm/min		Burnt Distance, mm	Duration of combustion, sec	Burning rate, mm/min
			Test Specimen 1	-	-	The igniting flame extinguished before reaching the severance of the first marker thread.
			Test Specimen 2	-	-	
			Test Specimen 3	-	-	
			(Please refer below photograph)			
2.	Remark	Sample under test meets Vertical Burning Rate test requirement when tested as per; IS: 15061-2002: Clause 3.3 and Annex B.				

TYPICAL PHOTOGRAPH

Sample Before test



Sample After test



Test Report Prepared By

Handwritten signature
02/03/23

H. L. KHANDASKAR
CHEMIST

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Test Report Verified By

Ms. R. R. NAIK
MANAGER

3.0 Melting Behavior as per IS 15061- 2002 Clause 3.4 Annex C.

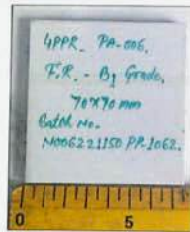
3.1 Observation Table:

	Temperature (°C) Max to Min	Relative humidity (%) Max to Min	Soak duration (hrs) Date of test
Soaked condition	27	65	24 hrs 02/03/2023
Test condition	27 to 26	68 to 64	---
---	---	Test specimen Dimension	Average: 70 X 70 X 4 mm

Sr. No.	Test Description	Specified Requirement	Observations				
			Criteria	Test Piece 1	Test Piece 2	Test Piece 3	Test Piece 4
1.	Melting Behaviour as per IS: 15061-2002, Clause 3.4, Annex C.	The result of the test shall be considered satisfactory if, taking the worst test results into account, no drop is formed which ignites the cotton wool.	The fall of drops, if any, whether flaming or not; Ignition of the cotton wool has taken place	No No	No No	No No	No No
(Please refer below photograph)							
2.	Remark	Sample under test meets Melting Behavior test requirement when tested as per IS: 15061- 2002; Clause 3.4 and Annex C					

TYPICAL PHOTOGRAPH

Sample Before test



Sample After test



Test Report Prepared By

H. L. Khandaskar
02/03/23

H. L. KHANDASKAR
CHEMIST

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Test Report Verified By

Ms. R. R. Nair
02/03/2023

Ms. R. R. NAIR
MANAGER

----End of Test Report----



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E-mail id : customercare@shriraminstitute.org
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TEST CERTIFICATE

NO : C1/0000287710

Issued To :
Client Code : (VALS01P1458)
PIONEER PANELS
SURVEY NO 718/1/A/1/A, BEFORE JANGAL MANGAL
DAIRY
KHATTALWADA BYPASS ROAD
VILLAGE KHATTALWADA STATION- SANJAN
TAL. UMERGAON
VALSAD
GUJARAT-396120
Kind Attn: MS SUJATA V

Date : 14-04-2022
Job No : 2204-1-141-586
Booking No : RG2223/1/247
Booking Date : 07-04-2022
Customer Ref No : email
Customer Ref Dt : 16-03-2022

J.O.N : 2204-1-141-586

Sample Detail :
ONE SAMPLE (QUANTITY : 2 PCS. OF 1M X 1M) DESCRIBED AS PIONEER PANELS 4PPR [0.50] 4 MM PA004
RICH WHITE, WAS RECEIVED.
The sampling was not carried out by SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH. The sample particulars
provided in the Test Certificate are based on the declaration by the Party.

S.No.	Tests	Results	Requirement as per IRC: 67-2012	Conformity	Protocol/Instrument Used
A)	Mechanical Properties of Aluminium Composite Panel				
1	Peel off strength, N/mm	16	4 Minimum	Yes	ASTM D 903-98
2	Tensile Strength, N/mm ²	49	40 Minimum	Yes	ASTM E 8-16
3	Yield strength at 0.2 % Proof Stress, N/mm ²	41	34 Minimum	Yes	ASTM E 8-16
4	Elongation, %	16	6 Minimum	Yes	ASTM E 8-16
5	Flexural Strength, N/mm ²	134	130 Minimum	Yes	ASTM D 790-17
6	Punch Shear Stress, N/mm ²	23	18 Minimum	Yes	ASTM D 732-17
B)	Properties of Aluminium Skin				
7	Tensile Strength, N/mm ²	152	150 Minimum	Yes	ASTM E 8-16
8	Modulus of Elasticity, N/mm ²	71265	70000 Minimum	Yes	ASTM E 8-16
9	Elongation, %	3	2 Minimum	Yes	ASTM E 8-16

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EMPLOYEE CODE: (MSG)

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qad@shriraminstitute.org

TEST CERTIFICATE

NO : C1/0000287710

10	Yield strength at 0.2 % Proof Stress, N/mm ²	135	110 Minimum	Yes	ASTM E 8 -16
11	Coil Thickness, mm				SOP/PR/02
	a) Top	0.5	0.4 to 0.5	Yes	
	a) Bottom	0.5	0.4 to 0.5	Yes	
C)	Additional Parameters				
12	Flexural Modulus, N/mm ²	12417	---	---	ASTM D 790-17

Note : Conformity of Flexural Modulus Test Parameter at serial No. 12 could not be given as requirement has not been declared in the IRC 67 : 2012 .

D.O.R : 07.04.2022

D.O.S : 08.04.2022

D.O.C : 14.04.2022

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EMPLOYEE CODE: (4159)

GC-01 (Rev 05)

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TEST CERTIFICATE

NO : C1/0000178216

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SURVEY NO 718/1/A/1/A, BEFORE JANGAL MANGAL
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VILLAGE KHATTALWADA STATION- SANJAN
TAL. UMERGAON
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GUJARAT-396120
Kind Attn: MS SUJATA V

Date : 19-06-2019
Job No : 1812-1-141-3139
Booking No : RG1819/1/10825
Booking Date : 24-12-2018
Customer Ref No. : PP/TEST/SIFIR/NOV/2018
Customer Ref Dt. : 21-11-2018
ULR NO. : TC544419000010854P



Job No- 1812-1-141-3139

ONE SAMPLE DESCRIBED AS PIONEER ALUMINIUM COMPOSITE PANEL (ACP), 4MM (0.50) PA04 RICH WHITE ,WAS RECEIVED.

"THE SAMPLING WAS NOT CARRIED OUT BY SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH. THE SAMPLE DESCRIPTION PROVIDED IN THE TEST CERTIFICATE ARE BASED ON DECLARATION BY THE SPONSOR."

Supplementary Report of Certificate.No.C1/0000157922, Dated : 17.01.2019

S.NO	Test	Result	Protocol adopted
1	Panel Thickness, mm	4	SOP/PR/02
2	Aluminium Coil Thickness, mm	0.5	SOP/PR/02
3	Deterioration of Visibility due to Smoke Class "A"		UIC 564-2 , Appendix 15
4	Chemical Resistance		AMMA 2605-05
	(a) 10 % HCl for 30 minutes	No colour change observed	
	(b) 70 % HNO3 for 30 minutes	No colour change observed	
	(c) 3 % Detergent for 72 hrs	No blisters observed	
	(d) Mortar for 24 hrs	No visual change observed.	
5	Salt Spray Test Condition		AMMA 2605-05
	Duration : 4000 hrs		
	Ph of test solution : 6.5 - 7.2		
	Test solution : 5 % NaCl		
	Temperature : 38 ± 2°C		
	(a) Rating of Failure at Scribe, Representative Mean Creepage from Scribe, mm	Zero (Rating Number 10)	
	(b) Rating of Unscribed Area, Area Failed, %	No Failure (Rating Number 10)	

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EMPLOYEE CODE: (MS9)

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TEST CERTIFICATE

NO : C1/0000178216

6	Humidity Resistance Test condition Duration : 4000 hrs Relative Humidity : 100 % Temperature : 38°C	No blister formation	AMMA 2605-05
7	Chalking Resistance (Wet Finger method)	No Chalking observed.	Method B, ASTM D 4214-07(2015)
8	UV Exposure for 500 hrs Exposure condition Duration : 500 hrs Lamp : UVA Wavelength : 340 nm Irradiance : 0.77W/m ² .nm UV Cycle at 8 hrs at 60±3°C Black Panel Temperature Condensation cycle at 4 hrs at 50±3°C Black Panel Temperature	No visual change observed	ASTM G 154 - 00
	(a) Colour Retention after UV Exposure	Delta L = - 1.35 Delta a = - 0.09 Delta b = -0.11 Delta E = 1.36	ASTM D 2244 - 16
	(b) Gloss Retention after UV Exposure, %	91	ASTM D 523-14(2018)

Note: Parameters at Sl.No. 7 & 8(a) are not covered in our NABL scope

DOR: 24.12.2018

DOC: 19.06.2019

GC-01(Rev-05)

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E-mail id : customercare@shriraminstitute.org

TEST CERTIFICATE

NO : C1/0000157922

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PIONEER PANELS
SURVEY NO 718/1/A/1/A, BEFORE JANGAL MANGAL
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VILLAGE KHATTALWADA STATION- SANJAN
TAL. UMERGAON
VALSAD
GUJARAT-396120
Kind Attn: MS SUJATA V

Date : 16-02-2019
Job No : 1812-1-141-3139
Booking No : RG1819/1/10825
Booking Date : 24-12-2018
Customer Ref No. : PP/TEST/SIFIR/NOV/2018
Customer Ref Dt. : 21-11-2018
ULR NO. : TC544419000002781P

Report Rev NO : 2



Job No- 1812-1-141-3139

ONE SAMPLE DESCRIBED AS PIONEER ALUMINIUM COMPOSITE PANEL (ACP), 4MM (0.50) PA04 RICH WHITE ,WAS RECEIVED.

"THE SAMPLING WAS NOT CARRIED OUT BY SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH. THE SAMPLE DESCRIPTION PROVIDED IN THE TEST CERTIFICATE ARE BASED ON DECLARATION BY THE SPONSOR."

Revised report of Certificate.No.C1/0000157922 dated on 17/01/2019

S.NO	Test	Results	Protocol adopted
A	Test on Aluminium Composite Panel (ACP)		
1	Thermal conductivity, w/mk	0.43	ISO : 22007 (Part 2)-2017
2	Tensile Strength, MPa	46	ASTM E 8-15
3	Yield Strength (0.2 % proof stress), MPa	38	ASTM E 8-15
4	Elongation, %	7	ASTM E 8-15
5	Heat Deflection Temperature, °C (At 1.82 Mpa stress)	More than 180	ASTM D 648-15
6	Panel dimensions, mm		Calibrated Measuring Tape
	(a) Length	100	
	(b) Width	100	
7	Weight of Panel, kg/m ²	5.2	Calibrated Weighing Balance
8	Resistance to Spread of Flame	Class "A"	UIC 564-2 (Appendix 4)
9	Limiting Oxygen Index, %	Not feasible on ACP Panel	IS : 13501-17
10	Composition of core Fourier Transform Infrared Spectroscopy (FTIR)	As per Spectra attached	FTIR
11	Toxicity index as per 100 gm of sample	0.4	NCD 1409
	Individual Concentration of gases		
	(a) Phosgene, ppm	Nil	
	(b) Hydrogen fluoride, ppm	Nil	

AUTHORISED SIGNATORY

EMPLOYEE CODE: (0157)

GC-01(Rev-05)

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TEST CERTIFICATE

NO : C1/0000157922

Report Rev NO : 2

	(c) Hydrogen chloride, ppm	Nil	
	(d) Hydrogen bromide, ppm	Nil	
	(h) Hydrogen cyanide, ppm	Nil	
	(i) Acrylonitrile, ppm	Nil	
	(j) Formaldehyde, ppm	Nil	
	(k) Carbon monoxide, ppm	Nil	
	(l) Carbon dioxide, ppm	40000	
	(m) Nitrogen oxides, ppm	Nil	
	(n) Ammonia, ppm	Nil	
B	Test on Aluminium Coil (Skin)		
12	Tensile Strength, MPa	168	BS EN 485-2 : 1994
13	Yield Strength (0.2 % proof stress), MPa	151	BS EN 485-2 : 1994
14	Elongation, %	2	BS EN 485-2 : 1994
C	Test on Coating Surface on Aluminium Coil		
15	Finish coat thickness, micron		ASTM D 7091-15
	(a) Top	25	
	(b) Bottom	3	
16	Formability (T-Bend)	No cracking observed while bending the panel approximately 180° around 25 mm mandrell	ASTM D 4045-18
17	Cross hatch adhesion	The edges of the cuts are completely smooth non of the quare of the lattice are detached (Rating 5B)	ASTM D 3359-17 (Method B)
18	Boiling water adhesion (100°C for 20 minutes)	The edges of the cuts are completely smooth non of the quare of the lattice are detached (Rating 5B)	ASTM D 3359-17 (Method B)

Note : 1. 4.00 gram sample taken for Toxicity test

2. Test has been carried out as per NCD-1409 further standardized by RDSO vide letter No.MC/PCF/4 dated 11.06.2014

3. Remaining test will be reported later.

4. Test at SL.No.6,7,12, 13 & 14 are not covered in NABL Scope

DOR: 24.12.2018

DOC: 16.02.2019

AUTHORISED SIGNATORY

EMPLOYEE CODE: (4159)

GC-01(Rev-05)

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SR1-C1 (Rev. 02)

QUALITY ASSURANCE AT PIONEER PANELS

QUALITY AS A CORE PHILOSOPHY

At Pioneer Panels, **quality is not just a checkbox but it is the foundation of our entire manufacturing philosophy.** We believe that in an industry where safety, durability, and performance are non-negotiable, quality cannot be inspected at the end—it must be built into every stage of the manufacturing process. This philosophy drives our systems, our people, and our culture, ensuring that every panel bearing the Pioneer name stands for trust and reliability.

INDUSTRY RESPONSIBILITY & PRECISION

The Aluminium Composite Panel industry demands **high seriousness and precision**, as the product directly influences building safety, façade longevity, and customer confidence. Whether it is fire performance, structural stability, colour retention, or weather endurance, even the smallest deviation can impact a project's integrity. Understanding this responsibility, we operate with stringent quality discipline from raw material selection to final dispatch.

RIGOROUS RAW MATERIAL TESTING & ADVANCED IN-HOUSE LABORATORY

Our commitment begins with **rigorous raw material testing and** our fully equipped **in-house laboratory** plays a pivotal role. Using advanced testing equipment, we evaluate every coil, adhesive film, core compound and surface protective film is thoroughly inspected for mechanical, chemical, and performance-based critical parameters such as bond strength, peel strength, impact resistance, fire behaviour, and weather durability etc. Only materials meeting pre-set standards move forward into production.





PROCESS-LEVEL QUALITY CONTROL & ONLINE & OFFLINE INSPECTIONS

Beyond material testing, our **process control systems** ensure precision at every stage—coating inspection, lamination temperature management, adhesive curing, thickness calibration, and surface quality monitoring. Automated production lines further eliminate human error and allow consistent and repeatable quality across millions of square feet of panels annually. Post-production, each panel is inspected for appearance, bonding, dimensional accuracy and mechanical performance.

DEFINED STANDARDS FOR RM & FG & COMPLIANCE WITH GLOBAL STANDARDS

To ensure consistency, Pioneer Panels has established **well-defined quality standards for both raw materials and finished goods**, developed through industry research, internal R&D, and global best practices. Our products meet and exceed the requirements of BIS, ASTM, EN, ISO, and other relevant international standards, validating their performance under demanding environmental and safety conditions.

TRACEABILITY & DOCUMENTATION

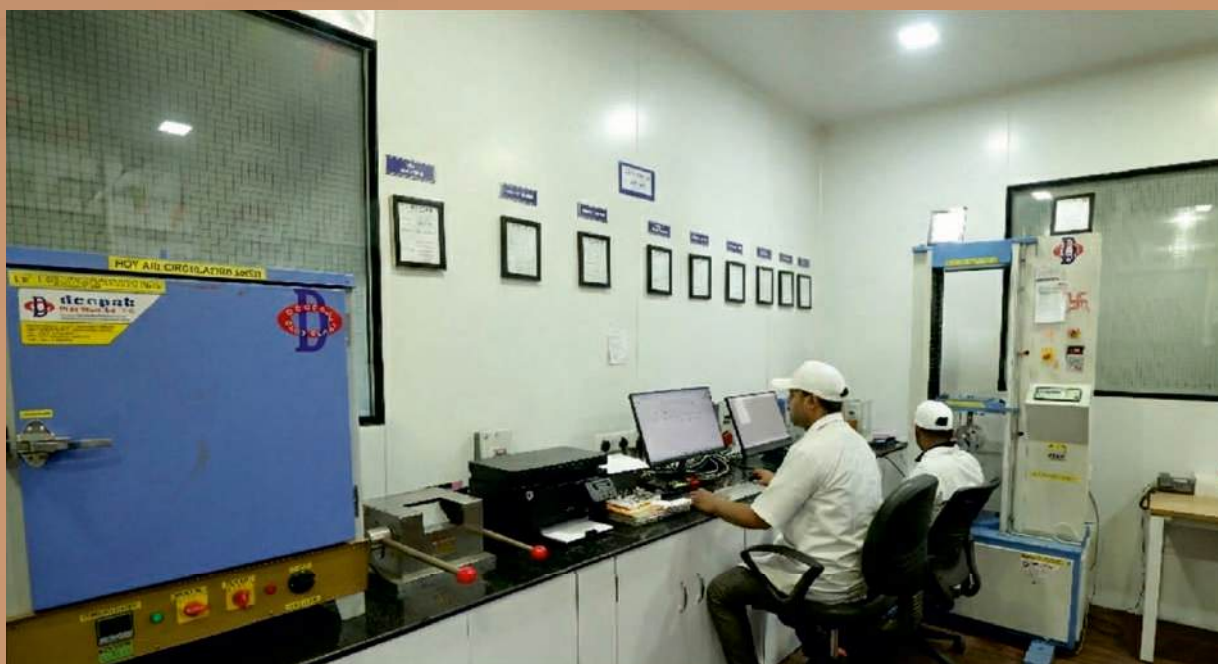
Quality assurance at Pioneer Panels also extends to **traceability and documentation**. Every panel is linked to its production batch, raw material source, and laboratory reports, enabling complete transparency and accountability. Our strict vendor evaluation process ensures that only certified and quality-approved suppliers contribute to our production ecosystem.

In essence, quality at Pioneer Panels is not a department—it is the foundation of our brand. With a perfect blend of advanced technology, skilled specialists, and uncompromising standards, we deliver panels that are structurally reliable, aesthetically refined, and built to stand the test of time.

Laboratory

Pioneer Panels operates a fully equipped in-house laboratory that plays a vital role in maintaining consistent quality and performance across our Aluminium Composite Panels. Managed by trained quality professionals, the laboratory enables strict monitoring of raw materials, in-process parameters, and finished products. All endurance tests are conducted as per BIS & ASTM Standards in our laboratory. Some of the tests that are conducted in our factory laboratory include tensile strength test, elongation test, peel-off strength test, scratch resistance test, colour assessment test, thickness test, delamination test, salt spray test, etc. Aligned with major standards, our laboratory ensures batch-wise traceability, accurate documentation, and compliance-driven production—delivering panels that are reliable, safe, and built to perform over time.

Sr No	Test Name	Objective
1.	Melt Flow Index Test	This test is done to analyse the flow rate of LDPE granules.
2.	Density Test	This test is used for inspection and quality control of LDPE material. Density tests gives an idea of the physical and mechanical properties of material being tested.
3.	Ash Content Test	Ash content test helps us in determining the percentage of filler (impurities) in the material being tested.
4.	Moisture Content Test	Moisture content test is done to determine the amount of moisture present in the sample.
5.	Hardness Test	The hardness test is done to determine the hardness and polymer characteristics of the LDPE granules. The flexibility and bending properties of the product depends upon hardness of these granules.
6.	Tensile Strength Test	This test is done to get information about toughness of material.
7.	Percentage of Elongation Test	This test is done to determine the ability of the material to withstand forces that pull it apart. It also determines the maximum limit to which the material can be stretched before it breaks.
8.	Yield Point Test	It is done to determine the maximum force with which the ACP sheet can be bent without breaking or getting deformed permanently.



9.	Solvent Rub Test	This test is done to determine the resistance of the colour coating applied during curing process on aluminium coil that changes when rubbed with solvent.
10.	Dry Film Thickness Test	This test is done to determine the thickness of the colour coating on aluminium coil.
11.	Adhesion Test	This test is done to assess the adhesive strength of coating films to metallic substrate.
12.	Impact Resistance Test	This test is to determine the impact strength and fracture resistance of ACP. This impact test helps in determining the ability of the ACP to resist against collision.
13.	T-Bend Test	This test is done to determine the flexibility and adhesion of colour coatings on metallic substrates that are deformed by bending.
14.	Pencil Hardness	This test shows the resistance of the colour coating on aluminium coil when a pencil lead of specific dimension is rubbed against the surface.
15.	Colour Retention Test	This test is done to ensure that there is no inconsistency in colour of the aluminium coil of different batches. This test is done using visual colour matching cabinet under different types of light.
16.	Hot Air Oven Test / Peel Strength Test	This test is done for analysing the strength of ACP sheet and its resistance to peeling when it is exposed to excess heat and hot air.

Pioneer 3D Panels – Transforming Surfaces into Architectural Statements

Break free from flat façades with Pioneer 3D Panels, engineered to bring depth, texture, and bold design language to modern architecture. These panels turn ordinary walls and façades into dynamic, visually captivating surfaces.

Beyond their aesthetic appeal, Pioneer 3D Panels are crafted with precision and durability in mind. Utilizing advanced manufacturing techniques and high-quality materials, they withstand various climates, ensuring long-lasting performance and beauty.

Whether seeking a subtle ripple effect, a geometric masterpiece, or an organic flow, Pioneer 3D Panels provide versatility and flexibility for ambitious design visions. They empower architects to push conventional boundaries and create iconic statements.



Advantages of 3D Panel

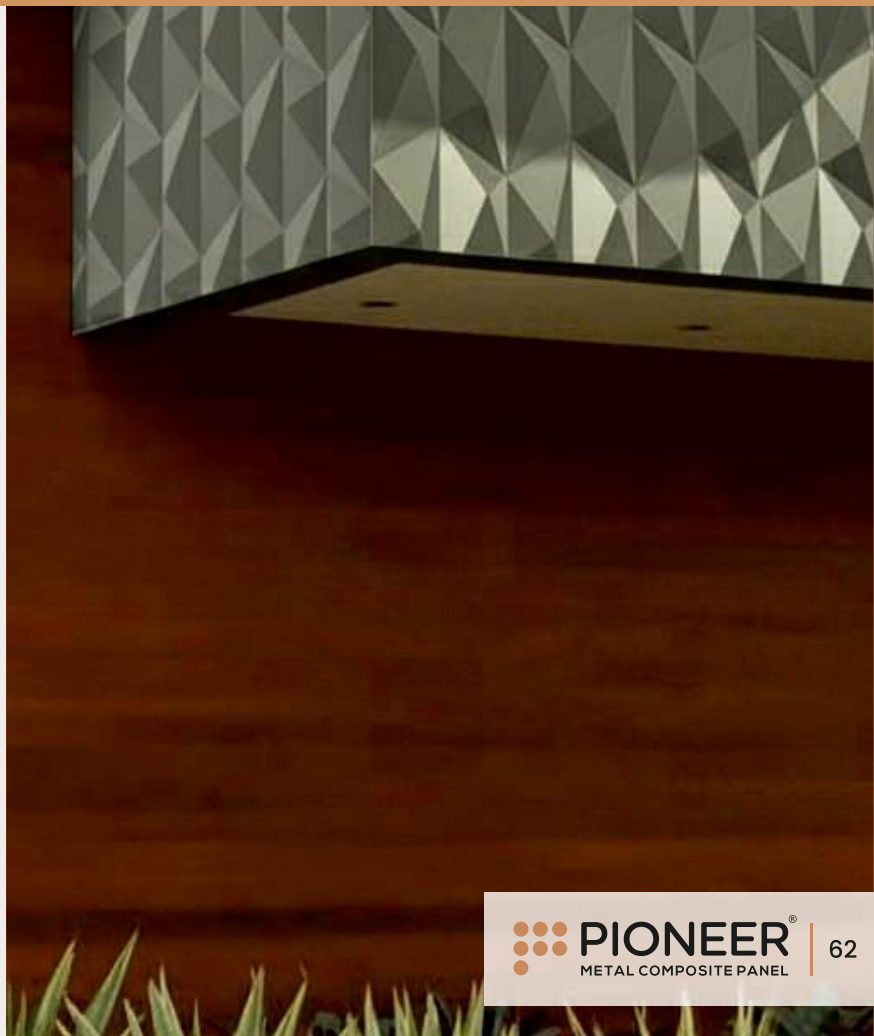
- Enhanced Aesthetics
- Weather Resistant
- Impact Resistant
- Available in Fire Retardant Panels also
- Improved Design Freedom
- Seamless Installation
- Sustainable & Long-Lasting



PIONEER 3D PANELS – WHERE EVERY SURFACE BECOMES A CANVAS FOR CREATIVITY

Applications of Pioneer 3D Panels:

- Feature Walls
- Building Façades
- Commercial Lobbies
- Creative Interiors
- Cultural & Exhibition Centers
- Conference Rooms & Boardrooms
- Auditoriums & Theatres
- Hospitality Spaces
- Retail Stores
- Educational Institutions
- Partitions & Dividers
- Outdoor Landscaping Walls



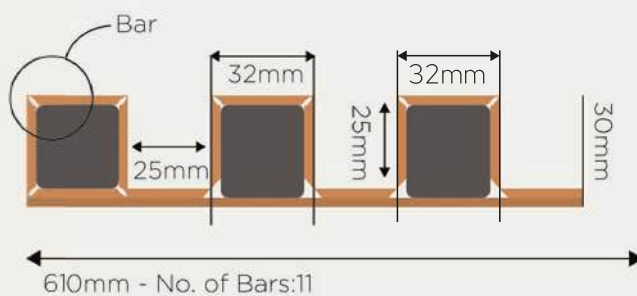
Pioneer Louvers

Where Functionality Meets Design

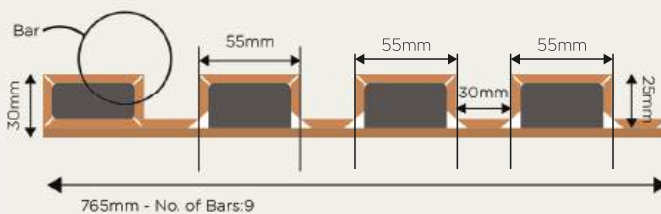
At Pioneer Panels, our ACP Louvers are crafted with uncompromising precision to bring architectural depth and refined aesthetics to both exterior and interior spaces. Made from high-quality PVDF-coated Aluminium Composite Panels, these louvers offer exceptional durability, superior colour retention, and high resistance to environmental conditions and everyday impacts. Designed with clean up-and-down profiles and seamless geometry, they add a modern, structured visual rhythm to any application—delivering long-lasting performance with an elegant, contemporary finish.

Pioneer Louvers are more than just a product; they are a commitment to excellence in both performance and aesthetics, transforming ordinary structures into extraordinary statements.

32mm



55mm



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Advantages of Pioneer ACP Louvers



Lightweight & Easy Installation



Customizable Designs



Durable & Long-Lasting



Low Maintenance



Sustainable Choice

A versatile design solution for homes, offices, halls, lobbies, and contemporary architectural spaces.

Applications of ACP Louvers

Commercial



Residential



Other
Architectural
Spaces



Interior Accents



Pioneer Fins

Pioneer FINS offer the perfect fusion of functionality and refined design, engineered to enhance both the aesthetics and performance of modern structures. Crafted as individual vertical or horizontal bars, these fins provide effective **shading, controlled daylighting, and improved ventilation**, making them ideal for **energy-efficient buildings and spaces that must remain open for airflow while still achieving a distinctive architectural look**.

Manufactured using **high-quality ACP with premium PVDF coating**, our fins are exceptionally durable, weather-resistant, and colour-fast—ensuring long-lasting performance in demanding exterior environments. With sleek profiles and precise geometry, Pioneer FINS elevate the visual appeal of façades while delivering practical environmental benefits.

Applications of Pioneer Architectural Fins

- **High-Rise Buildings**
- **Corporate & Commercial Complexes**
- **Atriums**
- **Educational & Institutional Buildings**
- **Residential Projects**
- **Airports, Metro Stations & Public Infrastructure**
- **Hospitality & Retail Spaces**
- **Parking Structures**
- **Roofing / Canopy / Ceiling**

Pioneer Panels your Partner in architectural innovation



Advantages of Pioneer Architectural Fins

Dynamic Light & Shadow



Ventilation



Corrosion Resistance



Durability



Aesthetic Appeal



Privacy & Screening



Low Maintenance



Customisable Lengths



Customizable Designs



Flexible Depth & Width Options



Wide Range of Shades





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PRODUCT TECHNICAL SPECIFICATIONS

PIONEER PANELS

Specifications of forbid fire panels

Produced by pioneer panels



4PPR FFP SETTLE (A2)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	4
4	Coil Thickness		MM	0.50
5	Weight		Kg/Sq. Mt.	8.8
6	Alloy			3003
7	Alloy Grade			H16/H14
8	Core (Inorganic Compound)		%	90
9	Core (Organic Compound)		%	10
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	5-6
2	Tensile Strength	ASTM E8	N/mm2	50-60
3	0.2% Proof Stress	ASTM E8	N/mm2	40-45
4	Elongation	ASTM E8	%	5
5	Flexural Rigidity	ASTM C393	KNmm2/mm	134
6	Flexural Elasticity	ASTM C393	GPA	38
7	Rigidity DIN-53293	KN/cm2	864	
8	Section Modulus	DIN-53293	cm3/m	2.76
9	Bending Strength	ASTM E8	N/mm2	53
10	Modulus of Elasticity	ASTM E8	N/mm2	70000
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	28
3	Rear coating type / Thickness	ASTM D1400	μ	12
4	Pencil Hardness	ASTM D3363	HB F	2H
5	Cross Hatch Adhesion	ASTM D3359-17	No Peel off	
6	MEK	ASTM D5402	D/R	>100
7	Impact Test	ASTM D2794	No Paint Peel off	
8	T-Bend	ASTM D4145	No Cracking	
9	Scratch Hardness	BS 3900 PART E2	Grams	1500
10	Boling Water Adhesion	ASTM D3359-17	No Detached Square	
D. Thermal Properties				
1	Deflection Temperature	ASTM C648	°C	140
2	Linear Thermal Expansion	EN-1999 1-1	mm/m @ 100 °C	1.40
3	Temperature Resistance	ASTM C518	°C	≥-20<80
4	Thermal Resistance	ASTM C518	M2K/W	0.007
E. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
F. Acoustical Properties				
1	Sound Transmission Loss	ASTM E413	dB	23
2	Sound Absorption Factor	ISO 354	-	0.05
G. Fire Retardant Properties				
1	Reaction to fire	EN-13501-1		A2. S1
2	Self -Ignition Temperature	ASTM D1929	° C	343-490

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

6HPL – FFP (0.50mm)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	6
4	Coil Thickness		MM	0.50
5	Weight		Kg/Sq. Mt.	9.9
6	Alloy			3003
7	Alloy Grade			H16/H14
8	Core (Inorganic Compound)		%	70
9	Core (Organic Compound)		%	30
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	8-9
2	Tensile Strength	ASTM E8	N/mm2	70-75
3	0.2% Proof Stress	ASTM E8	N/mm2	65-70
4	Elongation	ASTM E8	%	5
5	Flexural Rigidity	ASTM C393	KNmm2/mm	134
6	Flexural Elasticity	ASTM C393	GPA	38
7	Rigidity	DIN-53293	KN/cm2	864
8	Section Modulus	DIN-53293	cm3/m	2.76
9	Bending Strength	ASTM E8	N/mm2	53
10	Modulus of Elasticity	ASTM E8	N/mm2	70000
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	35
3	Rear coating type / Thickness	ASTM D1400	μ	12
4	Pencil Hardness	ASTM D3363	HB F	2H
5	Cross Hatch Adhesion	ASTM D3359-17	No Peel off	
6	MEK	ASTM D5402	D/R	>100
7	Impact Test	ASTM D2794	No Paint Peel off	
8	T-Bend	ASTM D4145	No Cracking	
9	Scratch Hardness	BS 3900 PART E2	Grams	1500
10	Boling Water Adhesion	ASTM D3359-17	No Detached Square	
D. Thermal Properties				
1	Deflection Temperature	ASTM C648	°C	140
2	Linear Thermal Expansion	EN-1999 1-1	mm/m @ 100 °c	1.40
3	Temperature Resistance	ASTM C518	°C	≥-20<80
4	Thermal Resistance	ASTM C518	M2K/W	0.007
E. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
F. Acoustical Properties				
1	Sound Transmission Loss	ASTM E413	dB	23
2	Sound Absorption Factor	ISO 354	-	0.05
G. Fire Retardant Properties				
1	Melt Flow Index	ASTM D1238	Gm/10 min	1.0
2	Reaction to fire	EN-13501-1		B.S1, d0
3	Surface burning Characteristics	ASTM E-84		Class B / Class B1
4	Self -Ignition Temperature	ASTM D1929	°C	Not less than 343
5	Exterior non load Bearing wall Assembly	NFPA 285		Passed Various assembly tests
6	Flame Retardancy	DIN 4102-1		B1
7	Flammability test	IS: 15061-2002	mm/min	100
8	Melting Behaviour Cotton Wool	IS: 15061-2002	No Drop Which Ignites the	
9	Brand Schacht	DIN 4102-15&16	No Droplets	

PRODUCT TOLERANCE: – Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Inorganic compound consists of Magnesium Hydroxide (MDH) & Organic compound consist of LDPE.

6HPL FFP– (0.25 mm)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	6
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	9.0
6	Alloy			3003
7	Alloy Grade			H16/H14
8	Core (Inorganic Compound)		%	70
9	Core (Organic Compound)		%	30
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	5-7
2	Tensile Strength	ASTM E8	N/mm2	45-50
C. Coil Properties				
1	Coating Thickness	ASTM D1400	μ / PVDF	28
2	Pencil Hardness	ASTM D3363	HB F	2H
3	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
4	MEK	ASTM D5402	D/R	>100
5	Impact Test	ASTM D2794 No Paint Peel off		
6	T-Bend	ASTM D4145 No Cracking		
7	Scratch Hardness	BS 3900 PART E2	Grams	1500
8	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
E. Fire Retardant Properties				
1	Flammability test	IS: 15061-2002	mm/min	100
2	Melting Behaviour	IS: 15061-2002	No Drop Which Ignites the Cotton Wool	
3	Brand Schacht	DIN 4102-15&16 No Droplets		
4	Resistance to fire	ASTM E119-12 2 Hrs.		

Inorganic compound consists of Magnesium Hydroxide (MDH) & Organic compound consist of LDPE.

PRODUCT TOLERANCE: – Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

4PPR – FFP (0.50 mm)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	4
4	Coil Thickness		MM	0.50
5	Weight		Kg/Sq. Mt.	6.98
6	Alloy			3003
7	Alloy Grade			H16
8	Core (Inorganic Compound)		%	70
9	Core (Organic Compound)		%	30
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	7-9
2	Tensile Strength	ASTM E8	N/mm2	45-50
3	0.2% Proof Stress	ASTM E8	N/mm2	40-45
4	Elongation	ASTM E8	%	5
5	Flexural Rigidity	ASTM C393	KNmm2/mm	130
6	Flexural Elasticity	ASTM C393	GPA	36
7	Rigidity	DIN-53293	KN/cm2	867
8	Section Modulus	DIN-53293	cm3/m	2.72
9	Bending Strength	ASTM E8	N/mm2	51
10	Modulus of Elasticity	ASTM E8	N/mm2	70000
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	28
3	Rear coating type / Thickness	ASTM D1400	μ	12
4	Pencil Hardness	ASTM D3363	HB F	2H
5	Cross Hatch Adhesion	ASTM D3359-17	No Peel off	
6	MEK	ASTM D5402	D/R	>100
7	Impact Test	ASTM D2794	No Paint Peel off	
8	T-Bend	ASTM D4145	No Cracking	
9	Scratch Hardness	BS 3900 PART E2	Grams	1500
10	Boling Water Adhesion	ASTM D3359-17	No Detached Square	
D. Thermal Properties				
1	Deflection Temperature	ASTM C648	°C	114
2	Linear Thermal Expansion	EN-1999 1-1	mm/m @ 100 °c	2.40
3	Temperature Resistance	ASTM C518	°C	≥-20<80
4	Thermal Resistance	ASTM C518	M2K/W	0.007
E. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
F. Acoustical Properties				
1	Sound Transmission Loss	ASTM E413	dB	26
2	Sound Absorption Factor	ISO 354	-	0.05
G. Fire Retardant Properties				
1	Melt Flow Index	ASTM D1238	Gm/10 min	1.0
2	Reaction to fire	EN-13501-1		B.S1, d0
3	Surface burning Characteristics	ASTM E-84		Class B / Class B1
4	Self -Ignition Temperature	ASTM D1929	° C	Not less than 343
5	Exterior non load Bearing wall Assembly	NFPA 285		Passed Various assembly tests
6	Flame Retardancy	DIN 4102-1		B1
7	Flammability test	IS: 15061-2002	mm/min	100
8	Melting Behaviour	IS: 15061-2002	No Drop Which Ignites the Cotton Wool	
9	Brand Schacht	DIN 4102-15&16	No Droplets	

Inorganic compound consists of Magnesium Hydroxide (MDH) & Organic compound consist of LDPE.

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

4PPR1 – FFP (0.25 mm)

Sr. No.	Description	Standard	Unit	Norms
A.	Basic Product Details			
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	4
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	6.25
6	Alloy			3003
7	Alloy Grade		H16	
8	Core (Inorganic Compound)		%	70
9	Core (Organic Compound)		%	30
B.	Mechanical Properties of Panel			
1	Peel Strength	ASTM D903	N/mm2	6-7
2	Tensile Strength	ASTM E8	N/mm2	35-40
3	Flexural Strength	ASTM D790	N/mm2	70-75
C.	Coil Properties			
1	Coating Thickness	ASTM D1400	μ / PVDF	28
2	Pencil Hardness	ASTM D3363	HB F	2H
3	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
4	MEK	ASTM D5402	D/R	>100
5	Impact Test	ASTM D2794 No Paint Peel off		
6	T-Bend	ASTM D4145 No Cracking		
7	Scratch Hardness	BS 3900 PART E2	Grams	1500
8	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D.	Chemical Resistance			
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
E.	Fire Retardant Properties			
1	Flammability test	IS: 15061-2002	mm/min	100
2	Melting Behaviour	IS: 15061-2002	No Drop Which Ignites the Cotton Wool	
3	Brand Schacht	DIN 4102-15&16	No Droplets	
4	Resistance to fire	ASTM E119-12		

Inorganic compound consists of Magnesium Hydroxide (MDH) & Organic compound consist of LDPE.
 PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm,
 Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

3PPG – FFP (0.25 mm)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	3
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	5.0
6	Alloy			3003
7	Alloy Grade			H16
8	Core (Inorganic Compound)		%	70
9	Core (Organic Compound)		%	30
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	5-7
2	Tensile Strength	ASTM E8	N/mm2	30-35
3	Flexural Strength	ASTM D790	N/mm2	70-75
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	26
3	Pencil Hardness	ASTM D3363	HB F	2H
4	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
5	MEK	ASTM D5402	D/R	>100
6	Impact Test	STM D2794 No Paint Peel off		
7	T-Bend	ASTM D4145 No Cracking		
8	Scratch Hardness	BS 3900 PART E2	Grams	1500
9	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
E. Fire Retardant Properties				
1	Flammability test	IS: 15061-2002	mm/min	100
2	Melting Behaviour	IS: 15061-2002	No Drop Which Ignites the Cotton Wool	
3	Brand Schacht	DIN 4102-15&16	No Droplets	
4	Resistance to fire	ASTM E119-12	2 Hrs	

Inorganic compound consists of Magnesium Hydroxide (MDH) & Organic compound consist of LDPE.

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.



Specifications of Aluminium Composite Panels

Produced by Pioneer Panels

6HPL (0.50 MM)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	6
4	Coil Thickness		MM	0.50
5	Weight		Kg/Sq. Mt.	7.9
6	Alloy		3003	
7	Alloy Grade		H16/H14	
8	Core			LDPE
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	7-9
2	Tensile Strength	ASTM E8	N/mm2	45-50
3	0.2% Proof Stress	ASTM E8	N/mm2	45-50
4	Elongation	ASTM E8	%	5
5	Flexural Strength	ASTM C393	N/mm2	90-105
6	Flexural Rigidity	ASTM C393	KNmm2/mm	134
7	Flexural Elasticity	ASTM C393	GPA	38
8	Rigidity	DIN-53293	KN/cm2	864
9	Section Modulus	DIN-53293	cm3/m	2.76
10	Bending Strength	ASTM E8	N/mm2	53
11	Modulus of Elasticity	ASTM E8	N/mm2	70000
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	35
3	Rear coating type / Thickness	ASTM D1400	μ	12
4	Pencil Hardness	ASTM D3363	HB F	2H
5	Cross Hatch Adhesion	ASTM D3359-17	No Peel off	
6	MEK	ASTM D5402	D/R	>100
7	Impact TestASTM D2794		No Paint Peel off	
8	T-Bend	ASTM D4145	No Cracking	
9	Scratch Hardness	BS 3900 PART E2	Grams	1500
10	Boling Water Adhesion	ASTM D3359-17	No Detached Square	
D. Thermal Properties				
1	Deflection Temperature	ASTM C648	°C	117
2	Linear Thermal Expansion	EN-1999 1-1	mm/m @ 100 °c	2.40
3	Temperature Resistance	ASTM C518	°C	
4	Thermal Resistance	ASTM C518	M2K/W	0.007
E Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
F. Acoustical Properties				
1	Sound Transmission Loss	ASTM E413	dB	26
2	Sound Absorption Factor	ISO 354	-	0.05

PRODUCT TOLERANCE: ± Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

6HPL (0.25 MM)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	6
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	7
6	Alloy			3003
7	Alloy Grade			H16/H14
8	Core			LDPE
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	5-7
2	Tensile Strength	ASTM E8		N/mm2
3	Flexural Strength	ASTM D790	N/mm2	80-85
C. Coil Properties				
1	Coating Thickness	ASTM D1400	μ / PVDF	28
2	Pencil Hardness	ASTM D3363	HB F	2H
3	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
4	MEK	ASTM D5402	D/R	>100
5	Impact Test	ASTM D2794 No Paint Peel off		
6	T-Bend	ASTM D4145 No Cracking		
7	Scratch Hardness	BS 3900 PART E2	Grams	1500
8	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

4PPR (0.50 MM)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	4
4	Coil Thickness		MM	0.50
5	Weight		Kg/Sq. Mt.	5.6
6	Alloy		3003	
7	Alloy Grade		H16/H14	
8	Core		LDPE	
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	6-8
2	Tensile Strength	ASTM E8	N/mm2	40-45
3	0.2% Proof Stress	ASTM E8	N/mm2	40-45
4	Elongation	ASTM E8	%	5
5	Flexural Rigidity	ASTM C393	KNmm2/mm	130
6	Flexural Elasticity	ASTM C393	GPA	36
7	Rigidity	DIN-53293	KN/cm2	867
8	Section Modulus	DIN-53293	cm3/m	2.72
9	Bending Strength	ASTM E8	N/mm2	51
10	Modulus of Elasticity	ASTM E8	N/mm2	70000
C. Coil Properties				
1	Reflective Index (Gloss @ 60°)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	28
3	Rear coating type / Thickness	ASTM D1400	μ	12
4	Pencil Hardness	ASTM D3363	HB F	2H
5	Cross Hatch Adhesion	ASTM D3359-17	No Peel off	
6	MEK	ASTM D5402	D/R	>100
7	Impact Test	ASTM D2794	No Paint Peel off	
8	T-Bend	ASTM D4145	No Cracking	
9	Scratch Hardness	BS 3900 PART E2	Grams	1500
10	Boling Water Adhesion	ASTM D3359-17	No Detached Square	
D. Thermal Properties				
1	Deflection Temperature	ASTM C648	C	114
2	Linear Thermal Expansion	EN-1999 1-1	mm/m @ 100 °c	2.40
3	Temperature Resistance	ASTM C518	C	≥-20<80
4	Thermal Resistance	ASTM C518	M2K/W	0.007
E. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	
F. Acoustical Properties				
1	Sound Transmission Loss	ASTM E413	dB	26
2	Sound Absorption Factor	ISO 354	-	0.05

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

4PPR1 (0.25 MM)

Sr. No.	Description	Standard	Unit	Norms
A.	Basic Product Details			
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	4
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	5.2
6	Alloy		3003	
7	Alloy Grade		H16	
8	Core		LDPE	
B.	Mechanical Properties of Panel			
1	Peel Strength	ASTM D903	N/mm2	5-7
2	Tensile Strength	ASTM E8	N/mm2	30-35
3	Flexural Strength	ASTM D790	N/mm2	70-75
C.	Coil Properties			
1	Coating Thickness	ASTM D1400	μ / PVDF	28
2	Pencil Hardness	ASTM D3363	HB F	2H
3	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
4	MEK	ASTM D5402	D/R	>100
5	Impact Test	ASTM D2794 No Paint Peel off		
6	T-Bend	ASTM D4145 No Cracking		
7	Scratch Hardness	BS 3900 PART E2	Grams	1500
8	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D.	Chemical Resistance			
1	5% HCL (24Hrs)	AAMA 2605		No Visual Change
2	5% NaOH (24Hrs)	AAMA 2605		No Visual Change
3	Window Cleaner Resistance	AAMA 2605		No Visual Change

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

3PPG (0.25 MM)

Sr. No.	Description	Standard	Unit	Norms
A. Basic Product Details				
1	Length		MM	2440
2	Width		MM	1220
3	Panel Thickness		MM	3
4	Coil Thickness		MM	0.25
5	Weight		Kg/Sq. Mt.	4
6	Alloy			3003
7	Alloy Grade			H16
8	Core			LDPE
B. Mechanical Properties of Panel				
1	Peel Strength	ASTM D903	N/mm2	5-6
2	Tensile Strength	ASTM E8	N/mm2	25-30
3	Flexural Strength	ASTM D790	N/mm2	65-70
C. Coil Properties				
1	Reflective Index (Gloss @ 60 °)	ASTM D523	GU	40
2	Coating Thickness	ASTM D1400	μ / PVDF	26
3	Pencil Hardness	ASTM D3363	HB F	2H
4	Cross Hatch Adhesion	ASTM D3359-17 No Peel off		
5	MEK	ASTM D5402	D/R	>100
6	Impact Test	ASTM D2794 No Paint Peel off		
7	T-Bend	ASTM D4145 No Cracking		
8	Scratch Hardness	BS 3900 PART E2	Grams	1500
9	Boling Water Adhesion	ASTM D3359-17 No Detached Square		
D. Chemical Resistance				
1	5% HCL (24Hrs)	AAMA 2605	No Visual Change	
2	5% NaOH (24Hrs)	AAMA 2605	No Visual Change	
3	Window Cleaner Resistance	AAMA 2605	No Visual Change	

PRODUCT TOLERANCE: - Panel Length: ±4.0mm, Panel Width: ±2.0mm, Panel Thickness: ±0.2mm, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: ±0.03mm.

Louvers – 32mm Series

Sr. No.	Description	Unit	Norms
1	Length	MM	2440
2	Width	MM	610
3	Panel Thickness	MM	30
4	Bar Thickness	MM	32
5	Bar Depth	MM	25
6	Groove (Bar Gap)	MM	25
7	Bars	No.	11
8	Weight	Kg/Sq. Mt.	10.50 Kgs
9	Coating		PVDF
10	ACP Thickness	MM	3
11	Coil Thickness	MM	0.25
12	Alloy		3105/3003

Louvers – 55mm Series

Sr. No.	Description	Unit	Norms
1	Length	MM	2440
2	Width	MM	765
3	Panel Thickness	MM	30
4	Bar Thickness	MM	55
5	Bar Depth	MM	25
6	Groove (Bar Gap)	MM	30
7	Bars	No.	9
8	Weight	Kg/Sq. Mt.	9.50 Kgs
9	Coating		PVDF
10	ACP Thickness	MM	3
11	Coil Thickness	MM	0.25
12	Alloy		3105/3003

PRODUCT TOLERANCE: – Panel Length: $\pm 4.0\text{mm}$, Panel Width: $\pm 5.0\text{mm}$, Panel Thickness: $\pm 1.0\text{mm}$, Maximum Squareness: 5.0 mm, Maximum Bowing: 0.5% of Length/or Width, Coil Thickness: $\pm 0.03\text{mm}$.



SUSTAINABILITY AT PIONEER PANELS

At its core, sustainability is about meeting today's needs without compromising the future. It means responsibly using resources, reducing environmental impact, and fostering social and economic well-being. By embracing sustainable practices, we ensure a better planet, stronger communities, and long-term growth for generations to come.

At Pioneer Panels, water is treated as a **precious resource**. Our facility in Gujarat is equipped with an **rainwater harvesting system** that collects, stores, and reuses rainwater for plant operations and landscaping.



SOLAR ENERGY POWERING A GREENER TOMORROW

At **Pioneer Panels**, sustainability begins with clean energy. Our Gujarat facility is equipped with a rooftop solar power system that ensures a significant part of our operations are powered by renewable energy.

By harnessing the sun, we reduce our dependency on fossil fuels, cut down emissions, and make every MCP we produce a step toward a sustainable future.

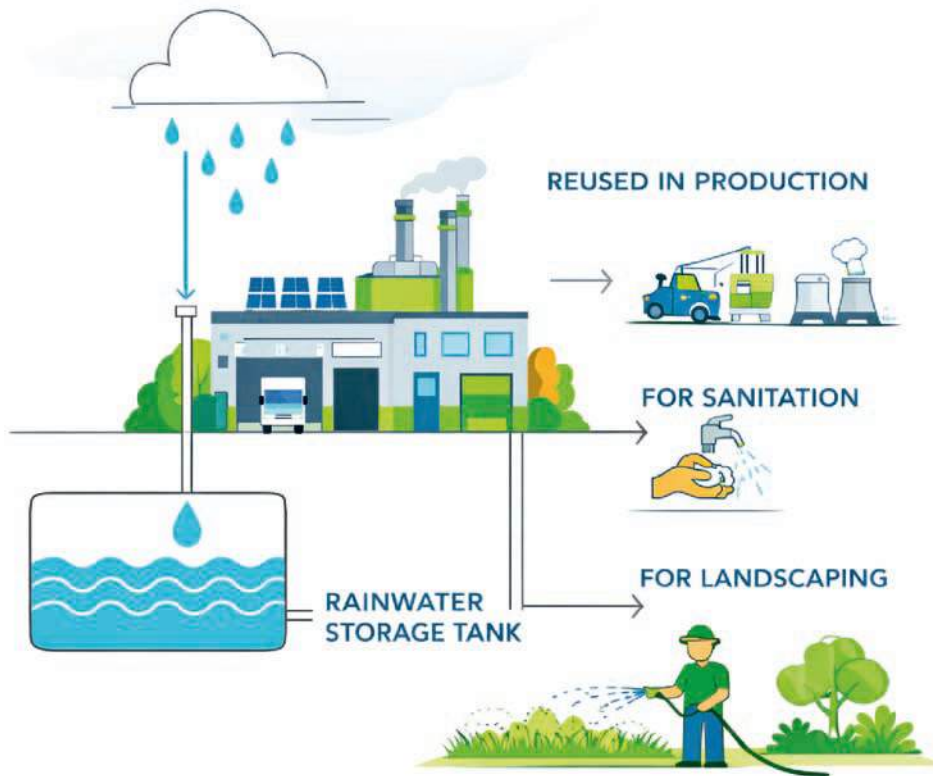
Our Solar Commitment:

- ✔ Large-scale rooftop solar installation at our plant
- ✔ Annual generation of clean electricity that offsets conventional power use
- ✔ Reduction of CO₂ emissions equivalent to planting thousands of trees every year
- ✔ Consistent, reliable power supply supporting uninterrupted production



Solar energy is more than just an investment for us—it is our promise to align industrial growth with environmental responsibility. Each Pioneer Panels product is not only built with advanced technology but also carries the assurance of being manufactured with **clean and renewable energy**.

RAINWATER HARVESTING



CONSERVING EVERY DROP

Reduces dependence on freshwater sources

Ensures uninterrupted water availability for manufacturing processes

Minimizes wastage by recycling natural resources

By conserving every drop, we make sure our growth is in harmony with the environment.

Waste Recycling Closing the Loop



Reuse of Granules – Maximum Efficiency

Every bit of raw material counts. Granules recovered from recycling are reintroduced into the production cycle, maintaining **consistency in quality** while reducing dependence on virgin raw materials.

Enhances material efficiency

Supports sustainability without compromising performance

Ensures panels retain their strength, durability, and finish

By reusing granules, we not only **reduce waste** but also contribute to a more sustainable future for construction materials.

Reuse of Scrap Coil – Responsible Recycling

Aluminum is **100% recyclable without loss of quality**, and at Pioneer Panels we ensure that even our scrap coils contribute to sustainability. Scrap generated during production is **carefully collected and sold to certified recyclers**, where it is reprocessed into reusable material.

By channeling scrap aluminum back into the recycling industry, we ensure that every Pioneer Panel is part of a larger sustainability cycle combining efficiency, responsibility, and care for the environment.

“Nothing wasted, everything renewed.”

RECYCLING OF SURFACE + PROTECTIVE FILM – CLOSING THE LOOP

To protect every Pioneer Panel during transport and installation, we use a **Surface Protective Film (SPF)**. Once the panel is installed, this film is peeled away. At Pioneer, we don't treat it as waste, we treat it as a **valuable resource**.

Our SPF Recycling Practice:

- | **Systematic Collection**
- | **Responsible Processing**
- | **Sustainable Reuse**
- | **Environmental Impact**

By recycling SPF, Pioneer Panels ensures that even the protective layer contributes to a **circular economy** and a **cleaner tomorrow**.

“From protection to preservation — recycling every layer responsibly.”

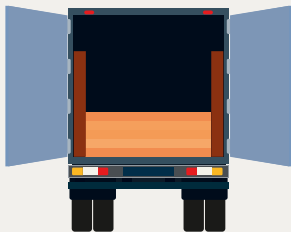


At Pioneer Panels, sustainability is woven into every stage of our operations from harnessing solar energy and conserving rainwater, to recycling production waste, reusing granules, responsibly channeling scrap coils, and collecting SPF for plastic recovery. These practices ensure that our growth is not just about producing world-class panels, but also about **protecting natural resources, reducing our carbon footprint, and promoting a circular economy**. Every Pioneer Panel is therefore more than a building material, it is a **commitment to building a greener, safer, and more responsible tomorrow**.

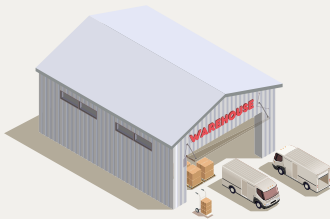
Handling & Storage



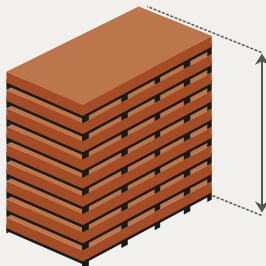
At the time of loading /unloading, place the ACP sheets on a plain surface. A rough surface may cause a dent on them. Do not pull/push or drag sheets from the vehicle. Lift sheets in small units from both ends.



The stack of sheets should be buffered on either side with ply or hard boards / wooden buffers so that the sheets stay fixed during transit. This exercise will ensure that no damage or dent is caused to the sheets.



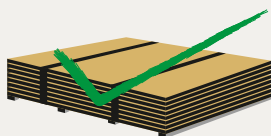
When storing Pallets, they should be stored in a clean, dry and covered warehouse or space at all times, so as to prevent the Pallets from being exposed to the sun, rain, moisture and other elements. If the ACP Sheets are exposed to sun rays for an extended period of time, there remains a chance of glue transfer from the protective film of ACP to the surface of the ACP Sheet.



When stacking the pallets on top of each other, the maximum height should not exceed 6 meters, so as to avoid warping and bending of the ACP Sheets.



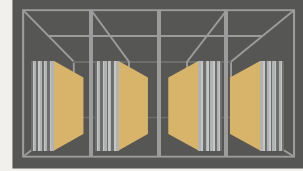
Only Pallets of identical size should be stacked one on top of the other.



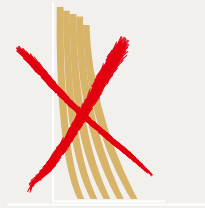
All Pallets must always be placed on horizontal racks or stacked horizontally.

Due to segregation and classification of material according to the codes written on the back of the ACP Sheets. For example, check the reverse side of ACP to find the product code/number.

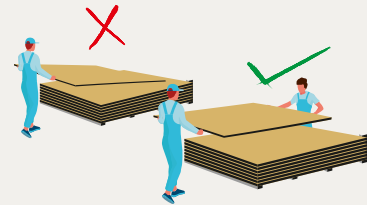
The racks containing the ACP sheets should have proper labels, specifying which rack contains which product.



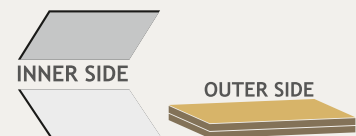
If ACP Sheets are removed from the Pallets, do not lean the removed ACP Sheets against any vertical wall or similar support, so as to avoid damage to the surface of the ACP Sheets.



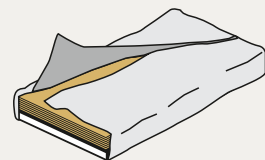
When removing ACP Sheet from a Pallet, it must be carried out with at least 1 worker, at opposite ends and they should only remove 1 Sheet at a time. A single worker must not try to remove or flip the Sheets out of a pallet by himself, as doing so could cause injury to the worker and damage to the ACP Sheet.



When stacking ACP Sheets on top of each other. ACP sheets should be kept as shown in image and nothing should be placed between them, so as to avoid causing any marks, dents or impressions on any of the ACP's surfaces.



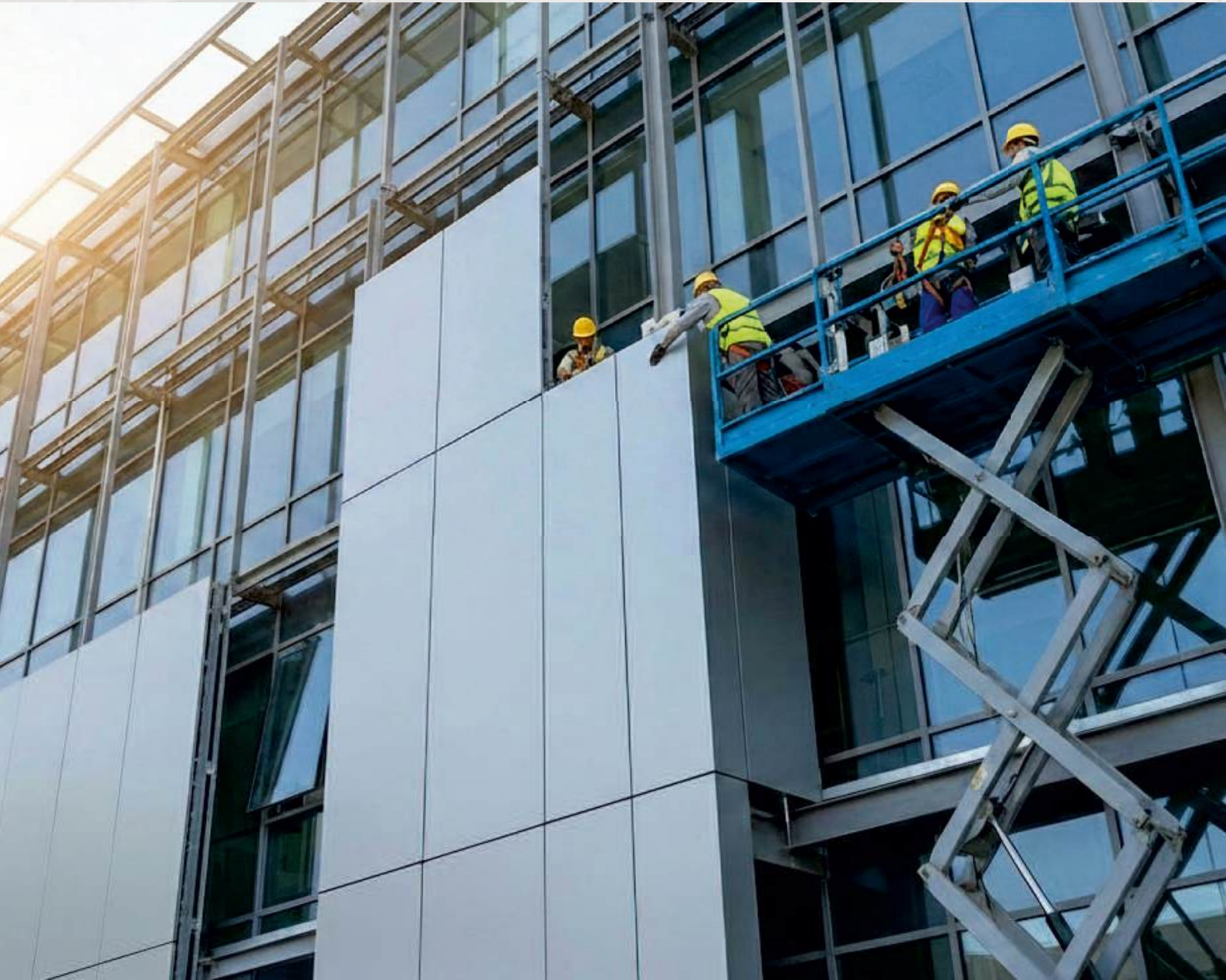
It is highly recommended to cover pallets with a plastic sheeting to prevent accumulation of dust and dirt on the ACP Sheets.

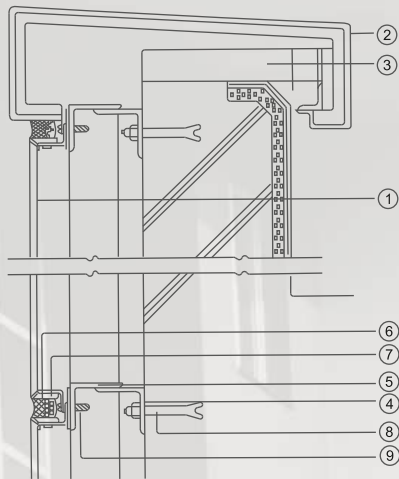


Storage exceeding 6 months or more must be avoided, as this could cause the protection film to over-stick to the ACP Sheet's coated surface.



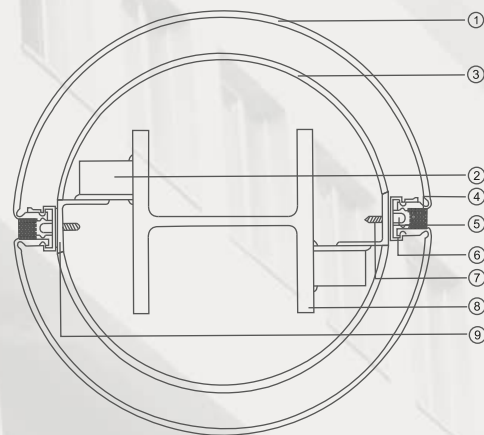
Installation Procedure





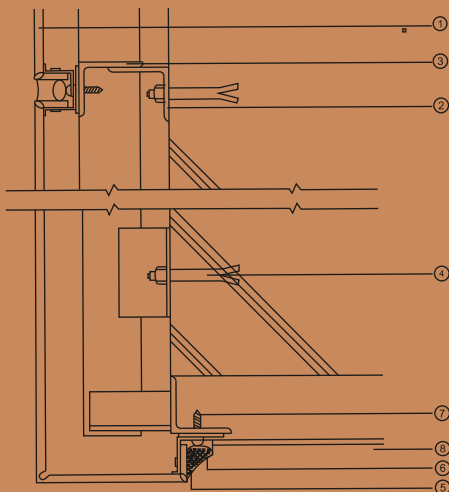
EXAMPLE AROUND COPING

- (1) Pioneer Panels, (2) Coping,
- (3) Angle piece-Bracket
- (4) Angle Piece, (5) Steel Angle
- (6) Sealing Material, (7) Backup Material
- (8) Hole-in Anchor or Built-in Bolt,
- (9) Tapping Screw

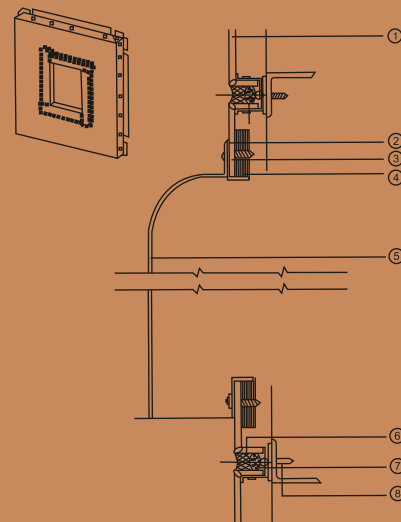


THIS ATTACHMENT SYSTEM IS SUITABLE FOR LOW-RISE CONSTRUCTION

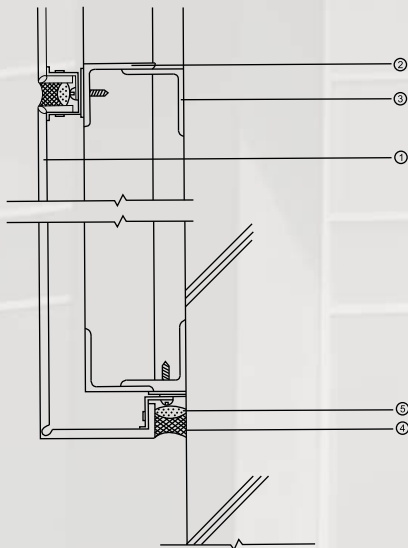
- (1) Pioneer Panels (2) Angle Piece-Bracket
- (3) Steel Flat Bar (4) Sealing Material
- (5) Vinyl Backer Road, (6) Attachment System (7) Tapping Screw
- (8) Structural Stud (9) Steel Angle



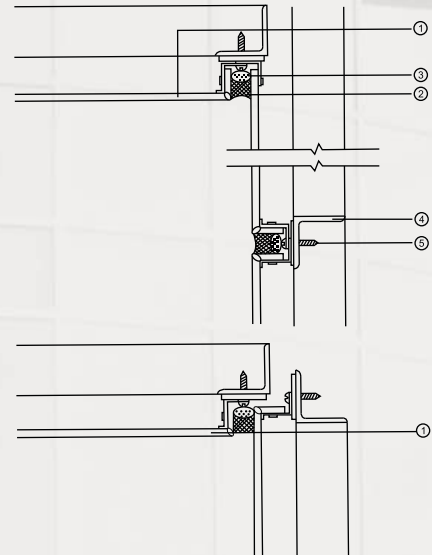
- (1) Pioneer Panels, (2) Angle Piece - Bracket
- (3) Steel Angle, (4) Hole-in Angle or Built-in Bolt
- (5) Sealing Material, (6) Backup Material
- (7) Tapping Screw, (8) Ceiling Borad



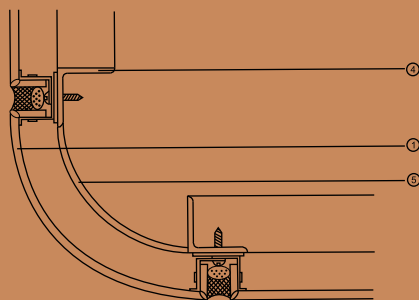
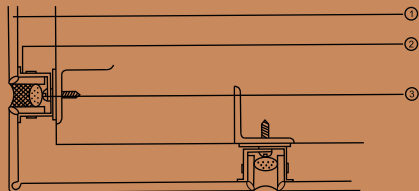
- (1) Pioneer Panels (2) Sealing all sides
- (3) Butyl Tape (4) Plywood Adhered with Rubber Adhesive (5) Weathering Cover
- (6) Sealing Material (7) Backup Material
- (8) Tapping Screw



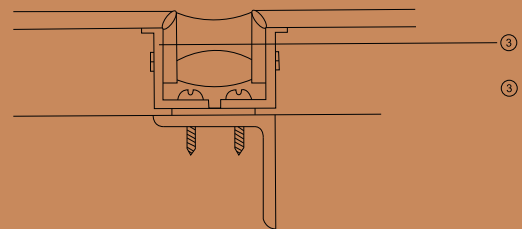
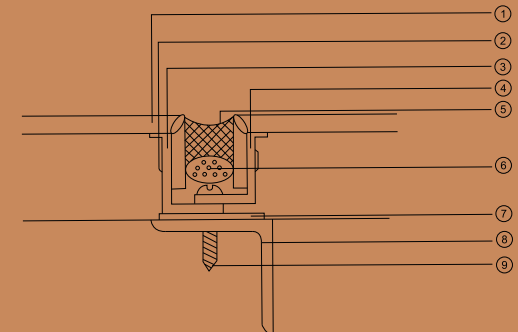
- (1) Pioneer Panels,
- (2) Steel Angle,
- (3) Angle Pieces-Bracket,
- (4) Sealing Material,
- (5) Backup Material



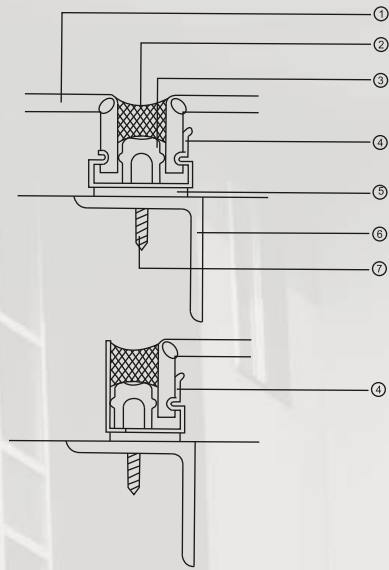
- (1) Pioneer Panels,
- (2) Sealing Material,
- (3) Backup Material
- (4) Steel Angle,
- (5) Tapping Screw



- (1) Pioneer Panels
- (2) Sealing Material
- (3) Backup Material
- (4) Steel Angle
- (5) Steel Flat Bar

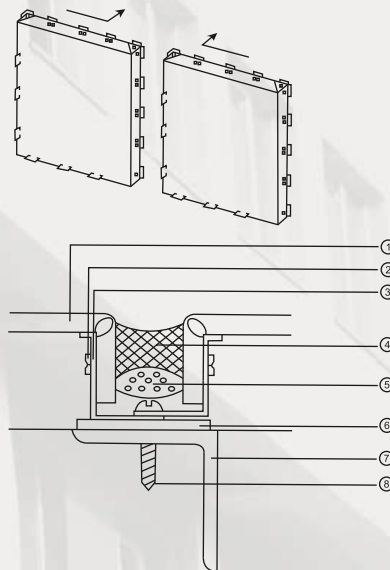


- (1) Pioneer Panels (2) Aliminium rivet
- (3) Aliminium Angle-large
- (4) Aliminium angle - small
- (5) sealing Material (6) Back-up Material
- (7) Shim (8) Steel Angle (9) Tapping Screw

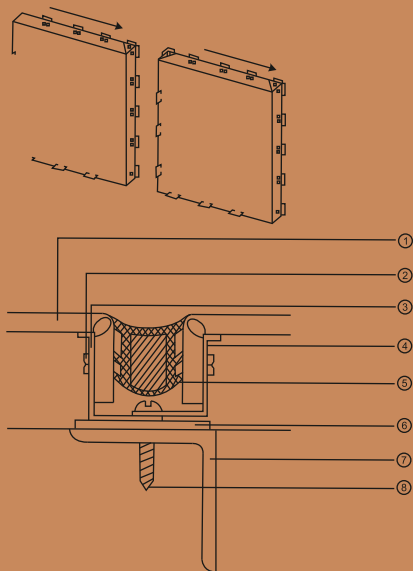


**THIS ATTACHMENT SYSTEM IS
SUITABLE FOR LOW-RISE CONSTRUCTION**

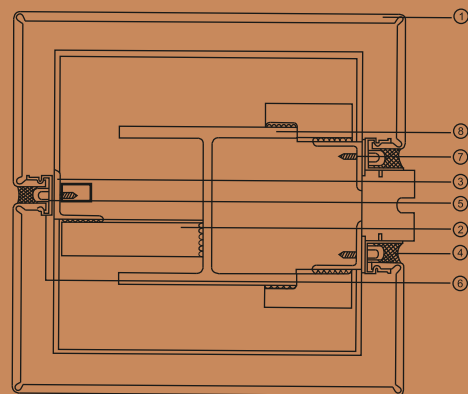
- (1) Pioneer Panels
- (2) Sealing Material
- (3) vinyl Backer Rod
- (4) Attachment System
- (5) Shim
- (6) Steel Angle
- (7) Tapping Screw



- (1) Pioneer Panels,
- (2) Aluminium Rivet
- (3) Aluminium Angle (Large)
- (4) Sealing Material (5) Backup material
- (6) Shim (7) Steel Angle
- (8) Tapping Screw



- (1) Pioneer Panels, (2) Aluminium Rivet,
- (3) Aluminium Angle - Large,
- (4) Aluminium Angle - Small
- (5) Gasket, (6) Shim,
- (7) Steel Angle, (8) Tapping Screw



**THIS ATTACHMENT SYSTEM IS
SUITABLE FOR LOW-RISE CONSTRUCTION**

- (1) Pioneer Panels, (2) Angle Piece - Bracket
- (3) Steel Angle, (4) Seaking Material
- (5) Vinyl Backer Rod, (6) Attachment System
- (7) Tapping Screw, (8) Structural Stud

ACP Sheet Cleaning & Maintenance Guidelines

To maintain the durability, warranty, and aesthetic appeal of Pioneer Panels' ACP Sheets, regular cleaning and maintenance are essential. Though the sheets resist dirt due to their smooth surface, neglect can lead to buildup that affects colour, gloss, and coating integrity.



Key Cleaning Guidelines

- ✓ **Surface Temperature:**
Always clean below 40°C to prevent surface damage.
- ✓ **Cleaning Motion:**
Start from the top using horizontal strokes first, followed by vertical strokes
- ✓ **Tools:**
Use soft, grit-free pads, squeegees, lint-free cloths and other industry approved equipments to avoid scratching.
- ✓ **Rinse Immediately:**
After cleaning, rinse with clean water and wipe dry with a soft cloth.
- ✓ **Cleaning Agents:**
Use mild alkaline solutions or 5–10% IPA (Isopropyl Alcohol).
- ✗ **Avoid harsh solvents like MEK, MIBK, trichloroethylene, paint thinners, or acidic/alkaline cleaners.**

Recommended Cleaning Frequency:

- ✓ Heavily Industrialized Areas : Twice a year
- ✓ Coastal / Low Rainfall Areas : Once a year
- ✓ Urban Areas : Once a year
- ✓ Rural Areas : Once every two years





Follow as:   



REGISTERED OFFICE

A-803, 8th Floor,
Damji Shamji Corporate Square,
Laxmi Nagar, Ghatkopar(E),
Mumbai - 400075
Maharashtra, India.

PLANT

Survey No. 718/1/A/1/1,
Khattalwada,
Umbergaon, Valsad-396120,
Gujarat, India.

022 - 31700127

+91 9372715859

sales@pioneerpanels.com

www.pioneerpanels.com

OUR PRESENCE

Agra, Ahmedabad, Ajmer, Aligarh, Amritsar, Aurangabad, Bareilly, Baroda, Belagavi, Bengaluru, Bhilwara, Bhiwandi, Bhopal, Chittorgarh, Chennai, Delhi, Faridabad, Ghaziabad, Gulbarga, Gurugram, Gwalior, Hubli, Hyderabad, Indore, Jaipur, Jalandhar, Jodhpur, Kochi, Kolkata, Kozhikode, Latur, Lucknow, Ludhiana, Malappuram, Meerut, Mumbai, Mysuru, Mangaluru, Nagpur, Nashik, Noida, Palakkad, Patiala, Pune, Rajkot, Rajpura, Sangli, Sri ganganagar, Surat, Srinagar, Trivandram, Udaipur, Vapi, Vijayapura

DEPO BRANCH

DEPO BRANCH				JAIPUR	9372715812
AHMEDABAD	9372715807	CHENNAI	9324725733	JODHPUR	9424725734
BHIWANDI	9372715800	DELHI	9372715808	MOHALI	9888314147
COCHIN	7736003108	HYEDERABAD	9966440688	UDAIPUR	8629911111



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