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DESIGN TO RESIST  
WEATHER

Exterior surfaces that provide complete and absolute protection from all types of weather

**AIROLAM**<sup>®</sup>  
DECORATIVE LAMINATES

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# VERSATILE SURFACES

To make exteriors speak for themselves, it is necessary for them to be at peace with technology and creative analog.



**AIRO**<sup>®</sup>  
Xterior  
BE VISIBLE

## WHY AIRO XTERIOR?

Airo Xterior is a modern exterior grade panel, which protects structure from weather in every season. Be it the severe heat of summer or the winter cold, these panels are extremely resistant to Indian weather. Each panel is covered with UV protection film on both sides to minimize the harmful effect of UV rays and sun rays.

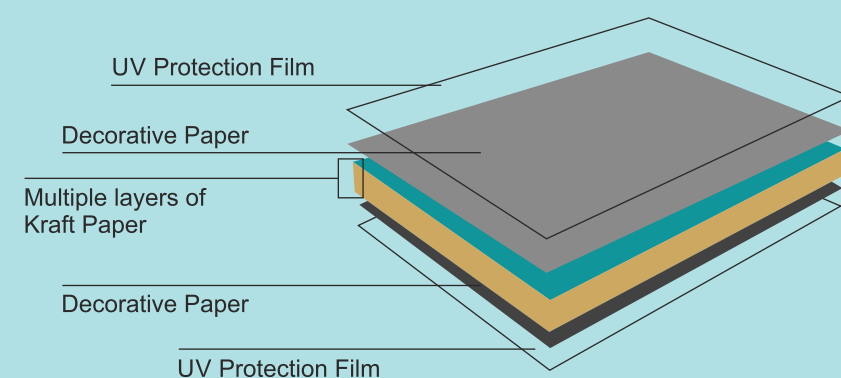
The installation of these panels can be done in multiple ways, but in each way the panels are installed at a distance from the wall. As the panels and wall are not in contact, the panels stop the heat and cold from the atmosphere to reach the structure.

# INSPIRING ARTICLES

Give your dream edifices a dreamy facelift with the distinct addition of these exterior wall cladding panels.



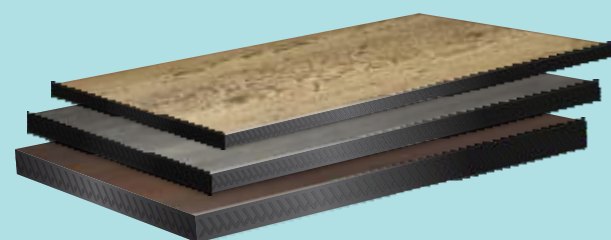
## COMPOSITION



Airo Xterior compact laminate is an engineered exterior facade panel with a decorative surface on both sides. These extremely strong panels are manufactured by Airolam, with the use of thermosetting resins which are joined with cellulose fibers for increasing the durability.

A layer of acrylic provides better UV protection and the panels are tested for severe use to ensure they are in accordance with EN-438. These tests make them ideal for application in ventilated facades and other external building elements.

|                  |   |
|------------------|---|
| <b>Sizes</b>     | 1220x2440 mm<br>1200x3050 mm<br>*1300x3050 mm<br>*(Available in selected Colours) |
| <b>Thickness</b> | 6, 8 & 10mm<br>(More thicknesses available on request.)                           |



# ARRAY OF APPLICATIONS







Airo Xterior makes exterior remarkable with ease. Airo Xterior not only beautifies but also exudes warmth of your place.

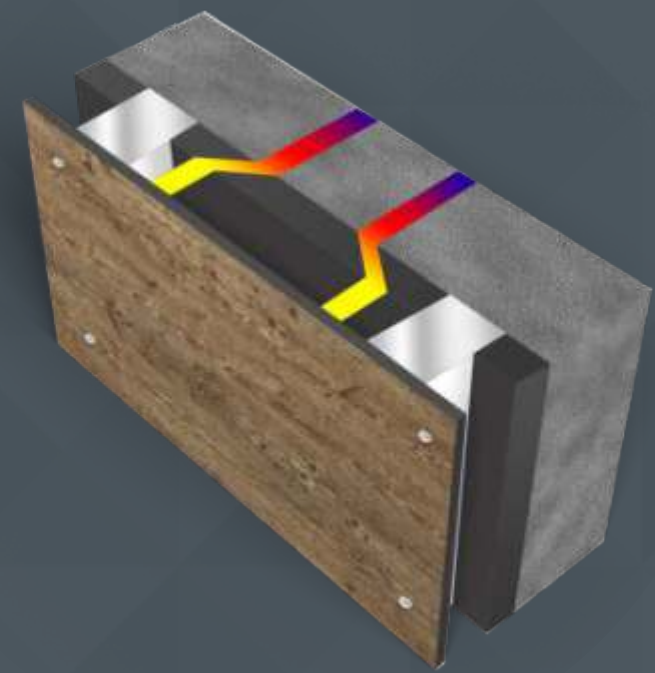
- ☑ Awning
- ☑ Balcony cladding
- ☑ Canopy
- ☑ Duct covering
- ☑ Fence, rail & screen
- ☑ Gate Cladding
- ☑ Highlighter
- ☑ Kiosk
- ☑ Lettering
- ☑ Louvre
- ☑ Parapet
- ☑ Partition
- ☑ Pedestrian shelter
- ☑ Prefab hut
- ☑ Roof cladding
- ☑ Signage
- ☑ Sliding Shutter
- ☑ Soffit
- ☑ Ventilated façade









| Point of Comparison | (ACPs)  | Airo Xterior   |
|---------------------|---|--|
| Decors              | Defined 30 decors   | Defined over 300 decors  |
| Range               | Plain colors and few designs  | Not only plain colors are available, but a very wide color range. Also available in wood grain decors, stone finishes.   |
| Features            | One sided and batch to shade variation is a possibility   | Both side design paper minimizes wastage.  |
| Scratch Resistance  | Prone to scratches  | Not only scratch resistant, but nearly scratch proof.  |
| Impact Resistance   | Takes dents and easily visible  | Double hardened and will take no dents and can be used for high rise buildings as well.  |
| Maintenance         | Can be cleaned  | Comparably easier to clean because of the surface finish   |
| Solvent Resistance  | Reacts to certain Acids / solvents  | Special grade and can be used as laboratory furniture too  |
| Raw Material        | Aluminum foil with polyurethane. Most of the times recycled plastic is used.                                    | With UV protection film decorative paper on top and bottom with kraft as core impregnated with different synthetic resins.   |
| Insulation          | Aluminum is normally a conducting material and deters only because of Polyurethane film inside                  | Very good insulating material  |
| Structure           | Installed on lighter substructure   | Installed on heavier substructure hence more durable and stable  |
| UV                  | Being metallic, it tends to lose its shine  | Optimal light fastness   |
| Weather Resistant   | Since foil is on the two sides and Polyurethane film used as sandwich, if not properly bonded, it may get loose | Material is compressed into one layer and it is extremely weather resistant  |
| Environment         | —   | Environment friendly as it consists of natural fibers and synthetic resins. Panels do not contain organic halogen (chlorine, fluorine, bromine, etc.) compounds, such as they occur in propellant gases or PVC. They contain neither asbestos nor wood preservatives (fungicide, pesticide, etc.) and are free of heavy metals. The precisely managed production processes have no negative effect of any kind on environment. Even with thermal disposal of waste, no environmental poisons such as Hydrochloric acid, organic chlorine compounds or dioxins can arise. |
| Bending             | Bends and dents on light impact   | Doesn't bend at all  |
| Applications        | Facades largely   | Façade claddings, Rear ventilated facades, Balcony claddings, Partitions, railings, Fences, Attic claddings, Ceilings, Outdoor furniture, Public facilities, Playground facilities, Sports facilities, Sun protection, Awnings, Business entry portals, Functional constructions, etc.   |

# FEATURES & BENEFITS

-  Easy to Install
-  Easy to Clean
-  UV Resistance
-  Waterproof Against Rain
-  Improves Sound Insulation
-  Optimal Light-Fastness



-  Fire Resistance
-  Scratch Resistant
-  Double Hardened
-  Thermal-Heat & Cold Insulation
-  Solvent Resistant
-  Impact Resistant

- Decorative
- High Weather resistance
- Optimal light fastness
- Scratch resistance
- Solvent resistant
- Self supporting
- Impact resistant
- Heat resistant
- Fire resistant
- Easy to clean and maintain
- Overall light weight substructure and façade
- Sustainability
- Quick and easy to assemble
- Increased sound proofing function (up to 15 Db)
- Decrease air conditioning cost
- Provide wall protection & heat Insulation against atmospheric precipitation

# MESMERIZING CREATIONS

Crafted exclusively for embellishing the exterior of your space with contemporary magnanimity and style.





# STUNNING SPECTACLES

Choose from a collection of wood grain surfaces to give that much needed rustic touch to your beloved spaces.



908 SF NEW | CHOCO PLANK

6 MM EXTERIOR COMPACT

WOODGRAIN



Follow your heart and side with the elegance of these timeless creations crafted to make your exteriors beautiful.

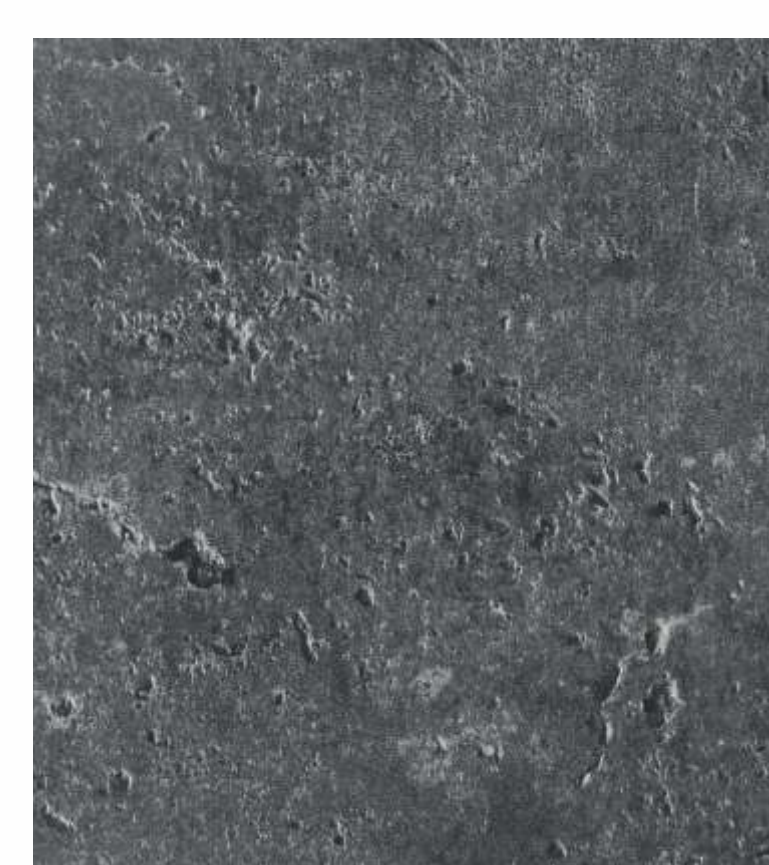


EX 907 SF | MAHOGANY PLANK

MAJESTIC  
**IMPRESSIONS**



STONE



EX 904 SF | CHARCOAL ROCK



EX 905 SF | SILVER ROCK

# MODERN MAVERICKS

Take a regal stance with the creativity of these impressive exterior wall cladding panels that mimic stone surfaces immaculately.





STONE



EX 953 SF | GRIS MARMO

## RAVISHING SIGHTS

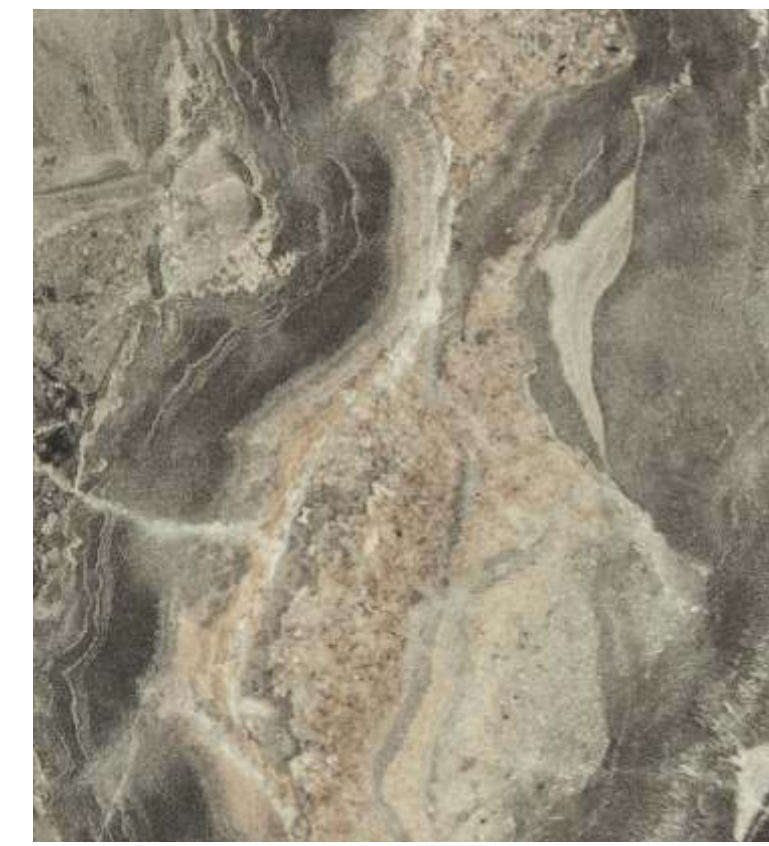
Tell a timeless tale of panache and flair that complements your character in the most profound manner with these surfaces.



EX 955 SF | CREMA MARMO



STONE



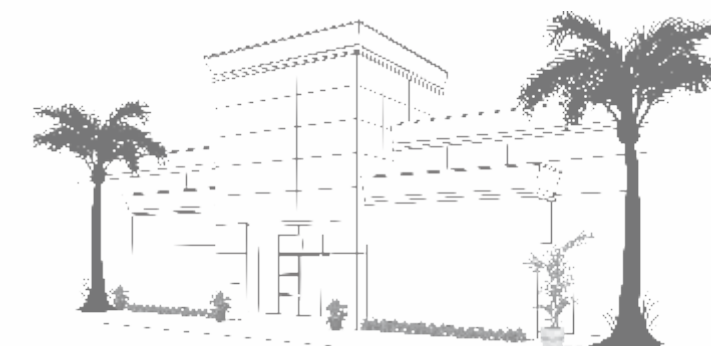
EX 903 SF | LIGHT GRANITA



EX 902 SF | DARK GRANITA

# TEMPTING DESIGNS

Airo Xterior lets you make a splendid statement with your exteriors, which enchants each and every one of its admirers.



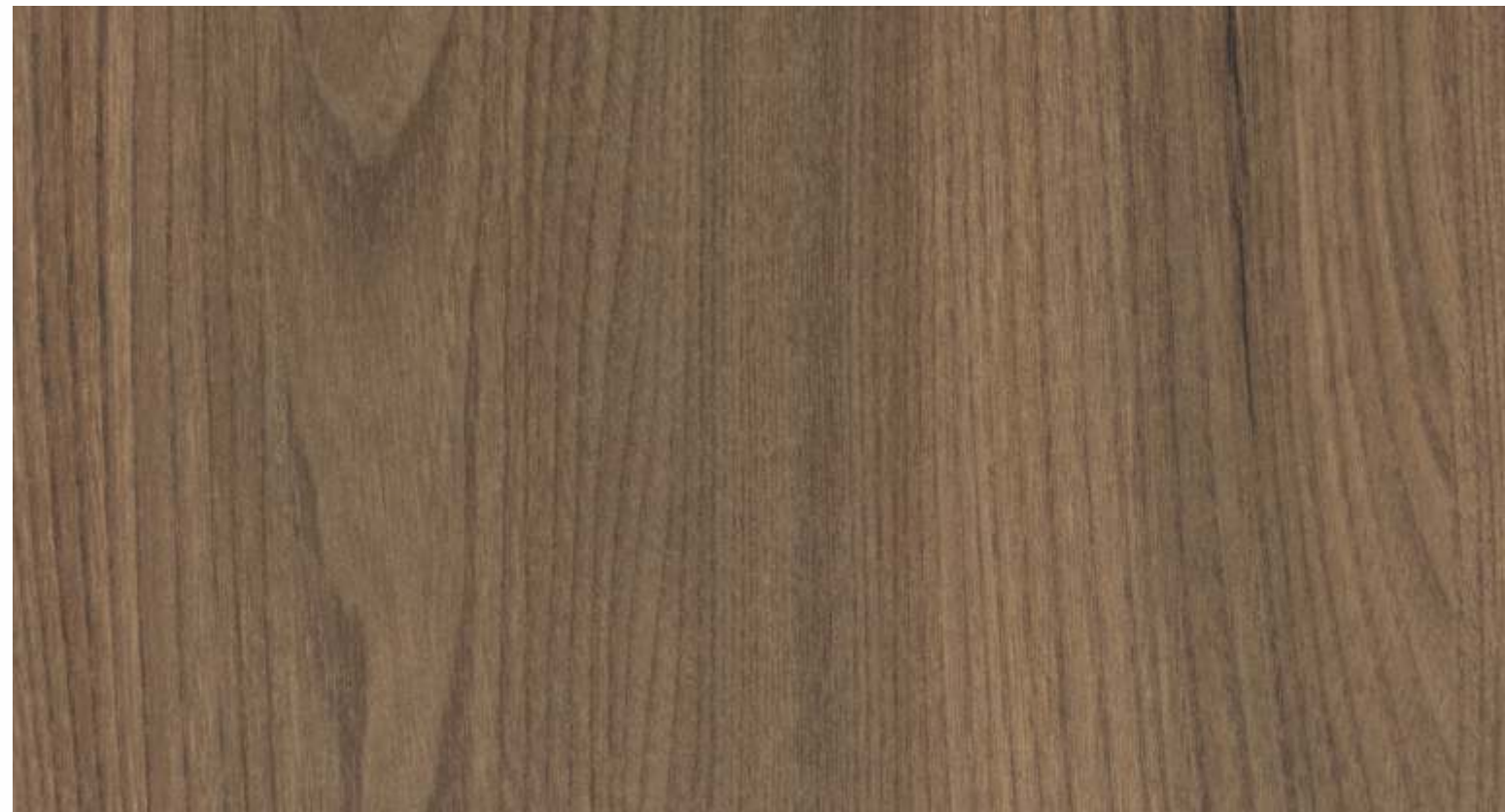


WOODGRAIN



# GRACEFUL WONDERS

Let your exteriors create an aura of magnetic style that takes you beyond the ordinary realm of grandeur.



EX 924 SF | NATURA TIMBER



EX 4949 SF | CLASSIC TIMBER



EX 4948 SF | ROYAL TIMBER



# VIVACIOUS **ARTISTRY**

Feel the blissful vibes of nature with these wood grain surfaces, which are a perfect fit for your wall cladding needs.



EX 641 SF | BRISK NATURA



EX 568 SF | MOCHA NATURA



EX 886 SF | UMBER NATURA

WOODGRAIN



EX 639 SF | CRIMSON LOG



EX 7003 SF | BURNT LOG



EX 897 SF | AUSTIN LOG

MARVELOUS  
**IMPRESSIONS**

Airo Xterior allows you the eccentric freedom to forge new style for the exterior of your lovely, contemporary edifices.



# WOODGRAIN



EX 861 SF | BRUNETTE ROGUE

## LUXURIOUS CREATIONS



Check out these fantastic and ecstatic surfaces by Airo Xterior, the ideal choice for making your exteriors gleam with opulence.



EX 855 SF | BRUNETTE ROGUE





# ECLECTIC DESIGNS

Take a page out from nature's handbook of beautiful impressions and give your exteriors a splendid makeover.



EX 833 SF | GROUNDWOOD



EX 686 SF | AUBURNWOOD



EX 578 SF | HAZELWOOD

# Schematics

# Installation



Adhesive



Adhesive Fixing



Finished Wall



Riveted



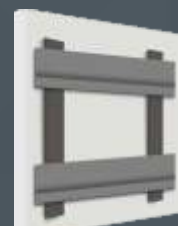
Riveted Fixing



Finished Wall



Z-CLIP



Z CLIP Fixing



Finished Wall

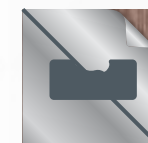
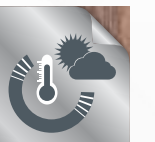
# PROPERTIES

Weather Resistance: Airo Xterior is highly weather resistant as there is no effect on the surface or the core of the Airo Xterior material when exposed to extreme weather conditions. It stands firm in high/ low temperatures or high/ low humidity levels.



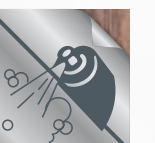
UV Resistance: A special UV protected treatment makes Airo Xterior UV resistant, with its special effect, the surface doesn't lose its color when exposed to direct sunlight for long periods.

Climatic Shock Resistance: Airo Xterior is resistant to sudden change in temperature and humidity of the atmosphere, and maintains its physical and mechanical properties remaining firm for long.



Corrosion Free: Airo Xterior is absolutely corrosion free unlike other external cladding products.

Graffiti Resistance: Airo Xterior is graffiti resistant, any writing marks made on the surface can be easily removed with diluted solvents.





# PROPERTIES

**Moisture Resistance:** Airo Xterior is highly moisture resistant hence ideal for use in all types of exterior cladding on buildings such as residential, workplaces, business centres, public buildings, airports and hospitals.

**Mechanical Properties:** Airo Xterior is impact resistant. Flexural strength, modulus of elasticity is very good because of the use of specially modified phenolic resin.

**Termite Resistance:** Airo Xterior is completely resistant to termite and fungal attack.

**Abrasion Resistance:** Airo Xterior has superior abrasion and wear resistance, hence life of Airo Xterior is far more than most of the other wall cladding materials.

Airo Xterior is also available in flame retardant grade.



FIRE RESISTANT



MOISTURE RESISTANT



IMPACT RESISTANT



TERMITE RESISTANT



SCRATCH RESISTANT



## EASE OF USE

**Install:** Less time and effort is required for installation.

**Maintain:** Can be cleaned using a damp cloth or sponge and a mild soap or detergent.

**Replace:** Reproduction of same colour of Airo Xterior is possible; so replacement with matching colour is possible.

**Renovation:** Can be installed on existing wall surface.

## TECHNICAL

| Technical Data Sheet (Exterior Grade Compact Laminate - Airo Xterior) |                       |                                  |   |   |                                      |
|---|-----------------------|----------------------------------|---|---|--------------------------------------|
| Physical Characteristics  |                       |                                  |   |   |                                      |
| PROPERTIES  | TEST METHOD           | ATTRIBUTES/PROPERTY              | UNIT                                    | Standard Value                            | Actual Value                         |
| Thickness   | EN 438 2-5            | 6,0 <e<8,0                       | mm                                      | Tol±0.4                                   | Tol±0.4                              |
| Length & Width  | EN 438 2-6            | Panel                            | mm                                      | +10-0                                     | +10-0                                |
| Edge Straightness   | EN 438 2-7            | Panel                            | mm                                      | <1.5                                      | <1.5                                 |
| Squareness  | EN 438 2-8            | Panel                            | mm/m                                    | <1.5                                      | <1.5                                 |
| Flatness  | EN 438 2-9            | 6.0 <e<8.0                       | mm                                      | <5.0                                      | <5.0                                 |
| Density   | ISO 1183              | Mass                             | g/cm3                                   | >1.35                                     | >1.4                                 |
| Wear Resistance   | EN 438 2-10           | Abrasion Resistance              | Revolution                              | 350                                       | >400 Rev.                            |
| Impact Resistance (Large Diameter Ball)                               | EN 438 2-21           | Dropped ball e > 6 mm            | mm                                      | 1800 mm height - no crack 10 mm Max.      | 1800 mm height - no crack 10 mm Max. |
| Dry Heat Resistance   | EN 438 2-16           | Resistance to Dry Heat at 180° C | Appearance                              | Min. Level 4                              | Level 5                              |
| Resistance to Boiling Water   | EN 438 2-12 T > 5.0mm | Moisture Resistance              | % Mass Increase<br>% Thickness Increase | Max. 2% in weight<br>Max. 2% in thickness | rW = 0.8%<br>rT = 0.8%               |
|   |                       |                                  | Min Level Appearance                    | Level 4                                   | Level 5                              |
| Mechanical Properties   |                       |                                  |   |   |                                      |
| Modules of Elasticity   | ISO 178               | Strength                         | Mpa                                     | > 9000                                    | > 9000                               |
| Flexural Strength   | ISO 178               | Strength                         | Mpa                                     | > 80                                      | > 90                                 |
| Tensile Strength  | EN ISO 527-2          | Strength                         | Mpa                                     | > 60                                      | > 70                                 |

## WEATHER RESISTANCE

| PROPERTIES   | TEST METHOD          | ATTRIBUTES /PROPERTY           | UNIT           | Airo Xterior   |                |
|--|----------------------|--------------------------------|----------------|----------------|----------------|
|  |                      |                                |                | STANDARD VALUE | STANDARD VALUE |
| Light Fastness   | EN 438 2-27          | Contrast                       | Grey Scale     | Min. Level 4   | > Level 4      |
| Artificial Weathering                                    | EN 438 2-29 : 3000 h | Contrast                       | Grey Scale     | Min. Level 3   | > Level 3      |
|  |                      | Appearance                     | Grey Scale     | Min. Level 4   | > Level 4      |
| UV - Light Resistance                                    | EN 438 2-28 : 1500 h | Contrast                       | Grey Scale     | No requirement | No requirement |
|  |                      | Appearance                     | Grey Scale     | No requirement | No requirement |
| Dimensional Stability at Elevated temperature            | EN 438 2-18-17       | Accumulated Dimensional Change | %              | L: Max 0.3 %   | < 0,3 % (L)    |
|  |                      |                                |                | W: Max 0.6 %   | < 0,6 % (W)    |
| Resistance to Climate Shock                              | EN 438 2-9           | Appearance                     | Rating         | Min. Level 4   | Min. Level 5   |
|  |                      | Flexural Strength Index Ds     | Index          | Min. 0.95      | 0.98           |
|  |                      | Flexural Modulus Index Dm      | Index          | Min. 0.95      | 0.97           |
| Fire Characteristics (For FR Grade EWC + / Airo Xterior) |                      |                                |                |                |                |
| Reaction to Fire   | EN 1350 1-1          | Fire Retardant                 | Classification |                | B S2 d0        |

To compliment the Airo Xterior range and UV coated for better color fastening properties, Airo Xterior can be installed by using essential fasteners of non-corrosive material like aluminum channels, head of the rivets are colored with anodized powder coat

#### Specifications in Airo Xterior panels:

- Sliding points: 8 mm as required
- Fixed points: 5 mm
- Diameter of hole in aluminium substructure: 5.1mm

#### Airo Xterior Installation Methods:

##### Riveting system

This system is applied to high rise buildings or used as supporting gluing systems to provide extra solidity. Airo Xterior Panels of 6mm & 8mm are suitable for riveted system on an aluminium substructure.

##### Aluminium Substructure:

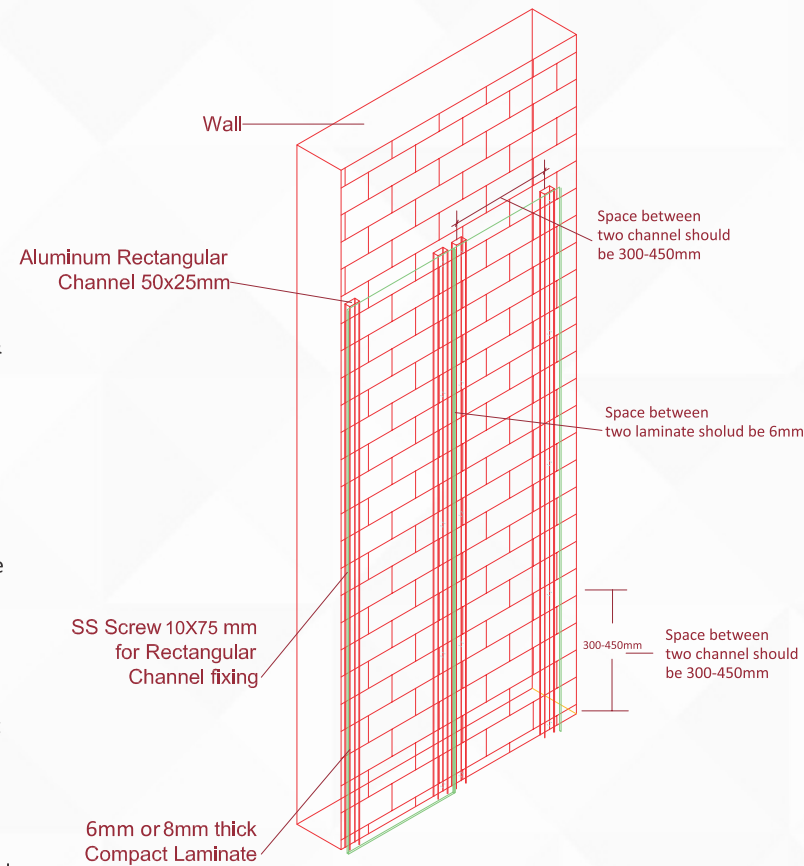
The aluminium substructure basically consists of vertical supports profiles which are mounted on the wall using brackets. It has to adhere to national standards and has to be installed in accordance with the manufacturing specification for the substructure. Due to the material properties of these panels, fixed points and sliding points need to be made in order to fix the panels.

##### Edge Spacing:

Keeping stability and flatness in mind, the Edge spacing must be kept in consideration. At least 8 mm wide joints must be made so that changes in size can take place without any interruptions. With the change in temperature, the metal sub-constructions change their dimensions. The dimensions of claddings change as per humidity fluctuations as well. These changes in the size of sub construction and cladding material can be opposite to each other. While installing keen attention must be paid to the expansion clearance. The thumb rule for calculating required expansion clearance is:  
 $X \text{ or } Y \text{ (in mm)}/500 = \text{Expansion Clearance}$

##### Specification

1. Aluminum tube channel should be used 38 X 38 X 2mm or 1.6 mm thickness or 50 X 25 X 2mm or 1.6mm thickness. At every junction of two panels, Aluminum tube channel should be used 63X38X2mm or 1.6mm thickness or 75 X 25 X 2 mm or 1.6mm thickness. Channel should be powder coated.
2. Channel should be fixed using galvanized brackets with 75X10mm anchor bolts on the wall having distance of 900mm c/c.
3. Riveting hole should be 8mm on the sheet and 5mm hole on the aluminum channel.
4. Riveting distance between each rivet in case of horizontal application should be 400mm-600mm c/c on elevation.
5. Riveting distance between each rivet on the ceiling application should be 300mm – 450mm.
6. Airo Xterior sheet riveting point marking should be 17mm to 25mm in horizontal and 40 to 50 mm in vertical from the edge of plant/ sheet.
7. Groove or gap between each panel in horizontal and vertical should be 6mm-8mm.



#### Adhesive System

Aluminium substructure: It consists of vertical support profiles which are mounted on the wall using angle brackets. Needs to adhere to National standards and must be installed according to the specifications of the manufacturer for the substructure.

#### Edge Spacing:

The Edge spacing must be kept in consideration for the reasons of stability and flatness. With the change in temperature, the metal sub-constructions change their dimensions. At least 8 mm wide joints must be made so that changes in size can take place without any interruptions. The dimensions of claddings alter by relative humidity fluctuations. These changes in the size of sub construction and cladding material can be opposite to each other. While installing keen attention must be paid to the expansion clearance. The thumb rule for calculating required expansion clearance is:

#### X or Y (in mm)/ 500 = Expansion Clearance.

##### Preparation of Surface & Priming:

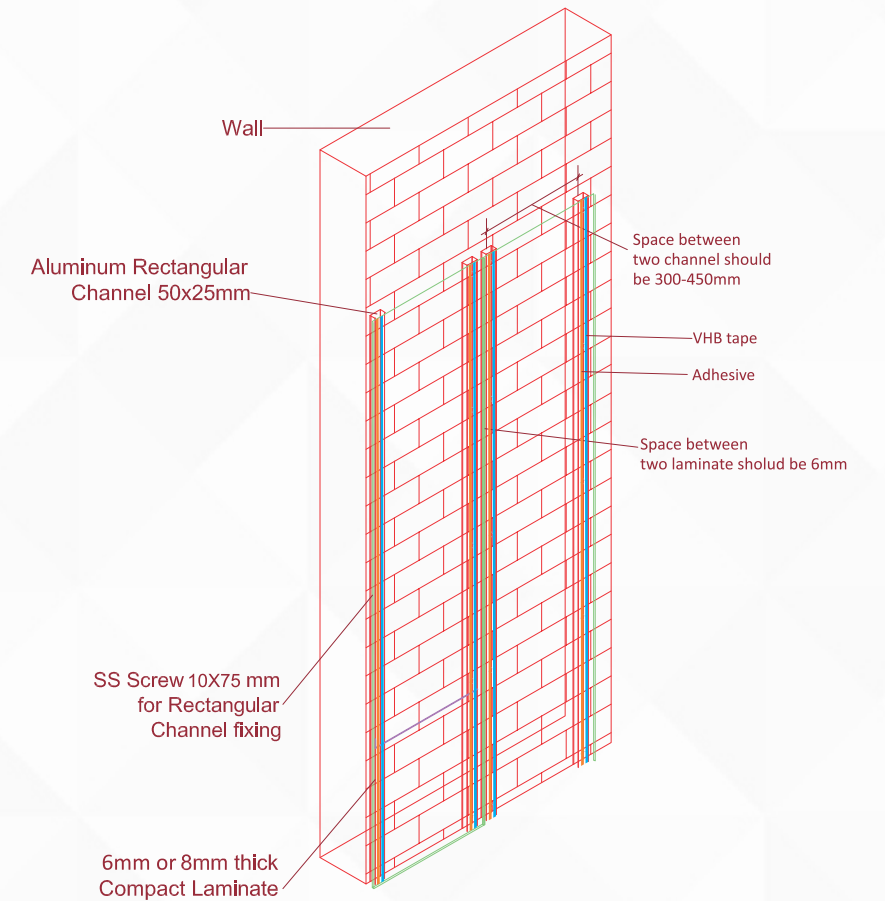
- **Abrasion:** Both the metal frame surface of the bonding area and the backside of HPL are abraded by using a cleaning pad/ fine emery paper.
- **DO's:** Use Emery paper finer than 220 grit.
- **DON'TS:** Course abrasive product should not be used.
- **USES:** Abrasion improves adhesion by creating fine scratches and removes scales/ other coatings.
- **Cleaning the Surface:** Wiping/ cleaning has to be done in a single direction later allow the solvent to evaporate. After the abrasion, surface is first cleaned with a dry cloth and then with 3M PU Cleaner.
- **Priming:** Priming promotes adhesion. The surface of the bond need to be primed with 3M PU primer 595 black for durability.
- **Application:** All these processes of surface cleaning has to be done just before the sealant application on the frame. While applying the primer, reversing the direction of the swab/ brush is not recommended. The black film should be continuously wiped in a single direction. For uniform coating on the surface primer can be applied either with brush or swab. To achieve this in one stroke swab has to be soaked with enough primer. Application of the primer should be done only on the bonding areas and allowed to dry for leaving a tack free film. To avoid dust accumulation on the surface, bonding should be completed at the earliest.

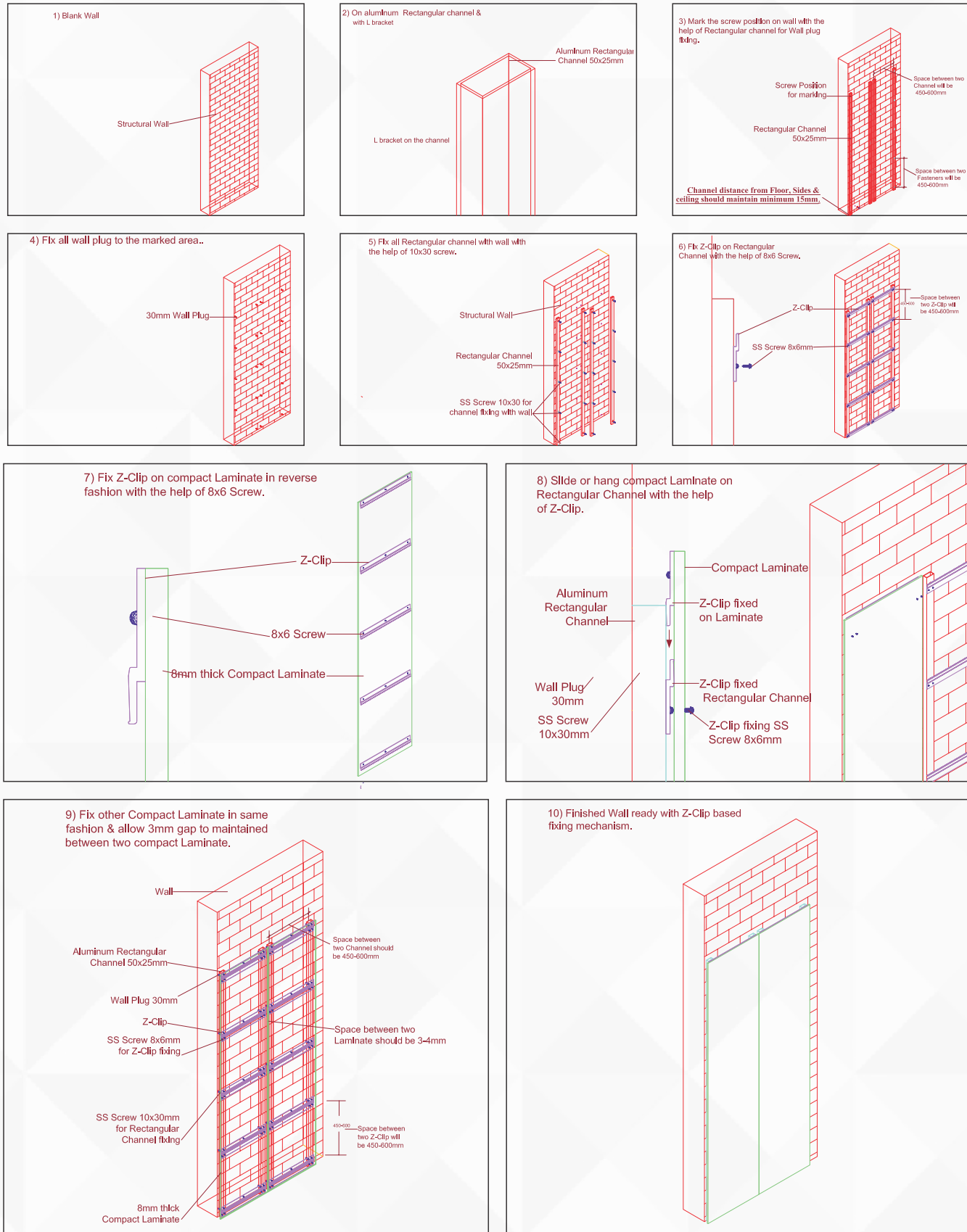
#### Very High bond Tape and Sealant Application:

**Application of Very High Bond Tape:** VHB tape is advised to apply before opening the sealant pack as the extended exposure of Sealant bead will cause skin formation. From the VHB Tape roll, sufficient length has to be unwinded. Hold the edge of the tape, and the portion where it is touched by the fingers outside must be left. For bubble free application of the tape, 3M HTA is recommended. Press the tape end to the frame, it should be aligned towards the outer edge of the frame. Wherever the tape needs to be joined, an overlap should be given then cut the overlapping edges of the tape. With the help of rubber roller, press the tape to ensure proper surface contact and to initiate the flow.

**Application of Sealant:** Application of sealant as triangular bead of 6-8mm base with a gap of 10-12mm from the tape is recommended. To get the triangular bead the nozzle of the sealant sausage/ cartridge should be cut at a proper length with a 'V' notch. Apply sealant as a continuous bead with the uniform dimensions. The triangular shape of the bead helps to get maximum contact area in between the sealant and the panel, when squeezed, and near rectangular bead.

**Panel Cladding:** After removing the liner from the tape, place the panel without pressing, to bond over the tape and sealant bead. To get a proper alignment the panel can be moved at this point, as it is not touched on the tape surface. There should not be much movement while aligning, to avoid any contamination of tape bonding surface with sealant. Bond strength depends on the amount of adhesive to surface contact developed. Pressure should be applied in such a way so that both the surfaces contact the tape fully. Once the alignment is done properly, push the panel to lock in that place and by using a rubber roller or by hand pressure press it down. As the adhesive flows onto the surface the bond will increase.





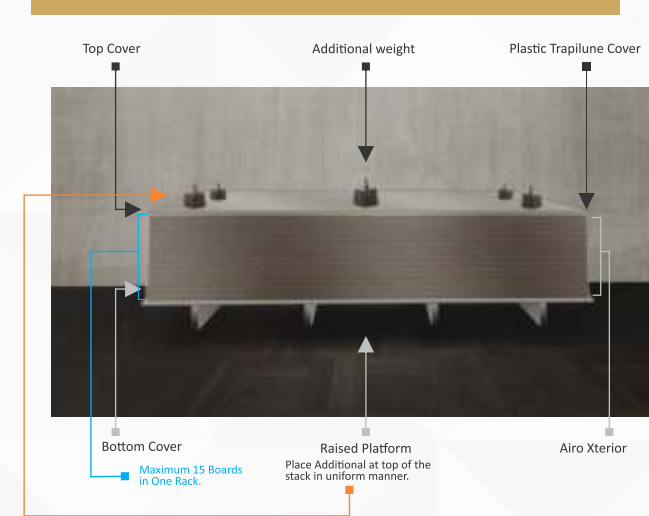
# MATERIAL HANDLING NORMS



Compact laminate boards have very high density, hence even the slightest difference of moisture absorption between two sides will result warpage immediately. This is why it is common to find warpage issues in compact boards stacked at the top or bottom. Through proper precautions in storage, the problem of warpage can be avoided to a greater extent.

The major guidelines for storage & handling of Airo Xterior are as under:

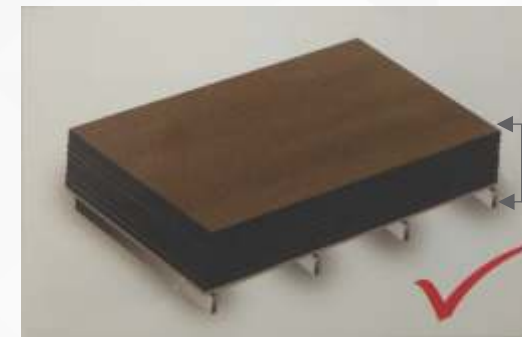
## STACKING OF AIRO XTERIOR



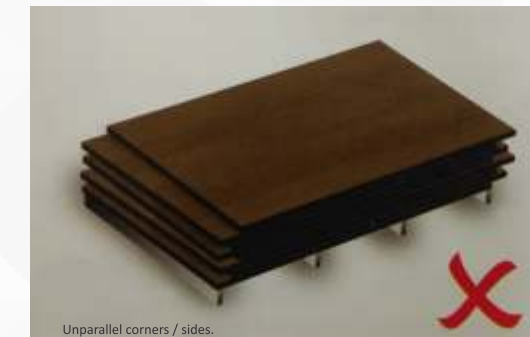
Both (front & back) surface of Airo Xterior will be covered from papers

- While stacking Airo Xterior, as both surfaces of all laminates except the top and the bottom one will be covered, we have to place one 2mm or 3 mm laminate at the bottom and one same laminate on the top with some load on the top cover.
- The stacking of Airo Xterior in supply of up to 15 boards will be done with one sheet of 2mm or 3mm laminate each at the bottom and the top.
- The top cover in all cases should be placed with some additional weight at appropriate places and in uniform manner.

## Airo Xterior SHOULD BE ABSOLUTELY PARALLEL TO EACH OTHER IN THE RACK



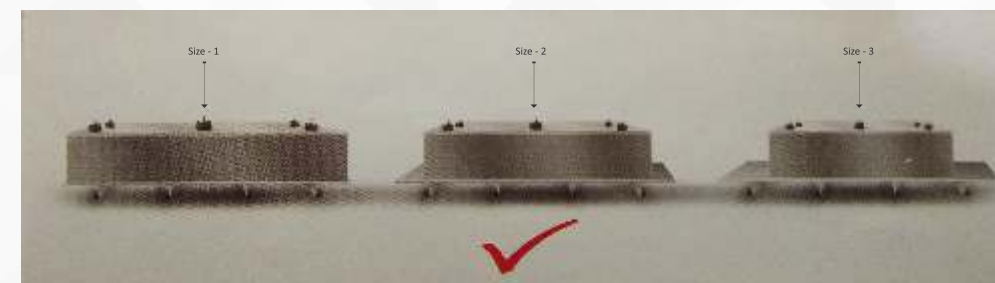
All Airo Xterior are parallel to each other from all corners / sides.



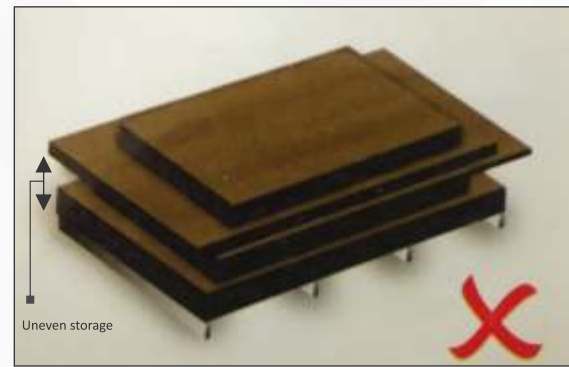
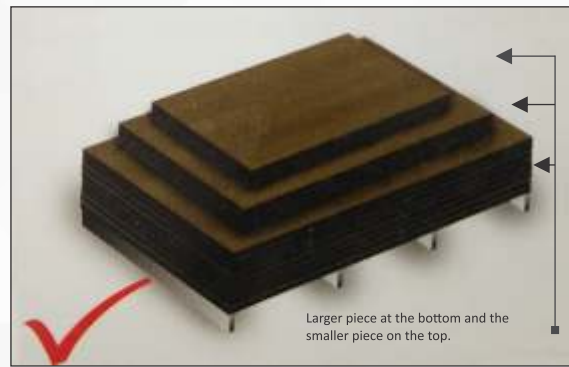
Unparallel corners / sides.

The storing of Airo Xterior boards should be absolutely parallel to each other, meaning no sides of the laminate should be found excess from any side.

## USE ONE STACK FOR SINGLE SIZES PANELS.

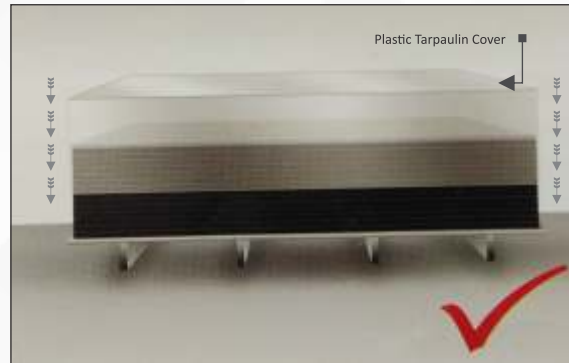


Same size Airo Xterior should be stacked in one stack so that excess or shortages will not be visible from any side in one stack.



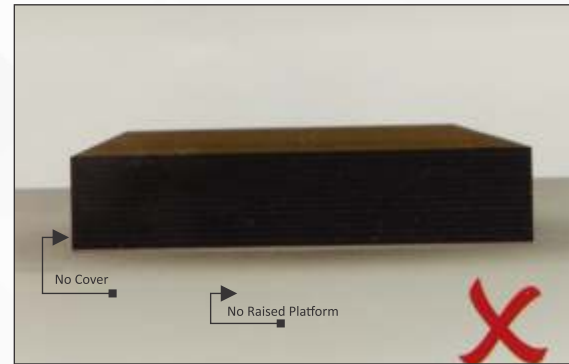
### WHEN THE STORAGE AREA IS LESS

In case where the space provided for storage is less, the stacking should be done in such a manner that the larger pieces are at the bottom and the smaller pieces at the top.



### COVER ENTIRE MATERIAL FROM PLASTIC TARPAULIN COVER

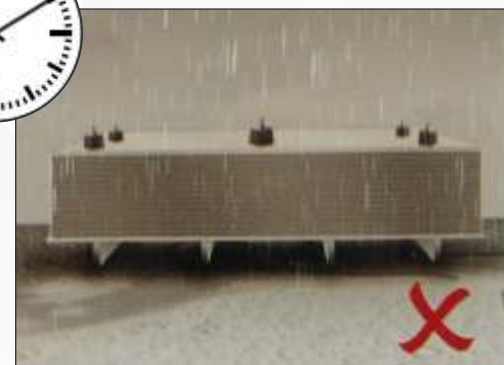
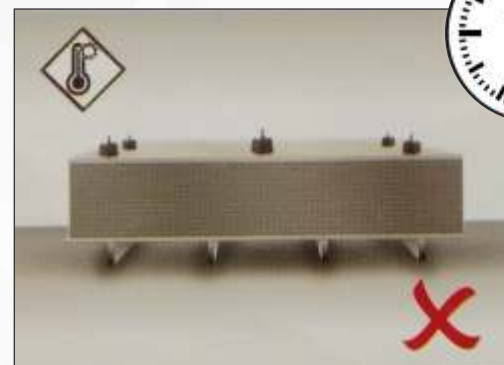
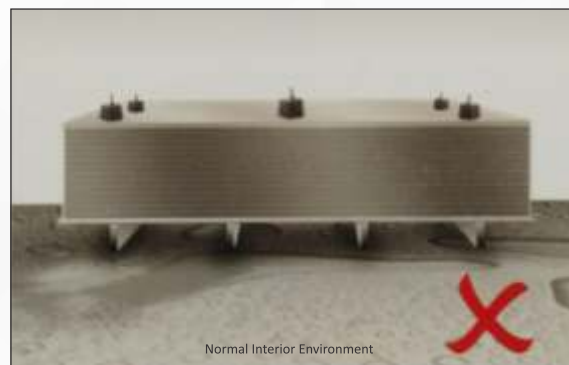
In all cases, a Plastic Tarpaulin cover is to be used for covering the entire material stacked at the site / godown.



### IN ABSENCE OF A RAISED PLATFORM BOTTOM COVER LAMINATE MUST BE COVERED WITH PLASTIC TARPAULIN SHEET.

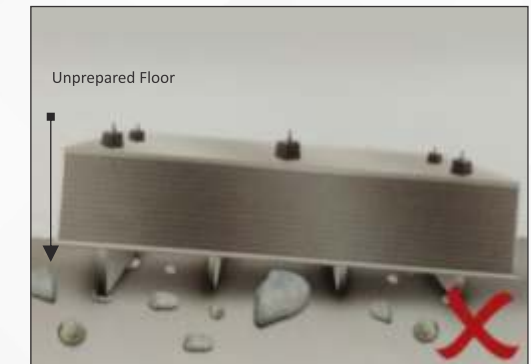
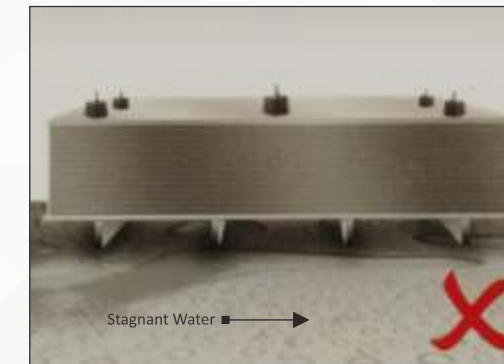
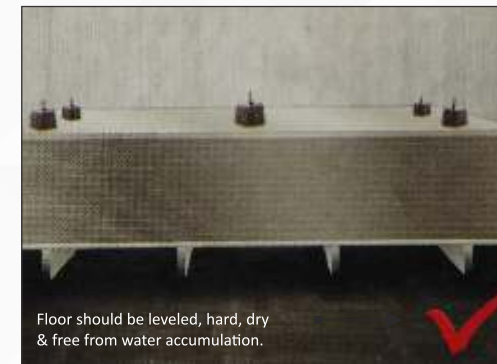
In case where the raised compact platform is not provided / used, it is mandatory that the bottom laminate cover is stacked on a plastic tarpaulin sheet.

### AVOID EXTENSIVE EXPOSURE TO SUNLIGHT, RAIN & HIGH HUMIDITY.



Stack should not be exposed in direct sunlight or very high humidity or rain for long time.

### AVOID STORAGE IN AREAS WITH CHANCES OF STAGNANT WATER ACCUMULATION



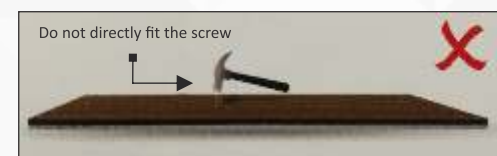
Always avoid stacking of Airo Xterior in areas with chances of stagnant water accumulation. Stock of Airo Xterior should not be kept on wet / unprepared floor under any circumstances even for short periods.

### AIRO XTERIOR STACKING PERIOD IN HIGH HUMIDITY AREAS



In high humidity areas (especially the coastal regions), the Airo Xterior stacking period should not exceed 30 days. All efforts should be made to ensure that all the Airo Xterior can be used for a long period of time.

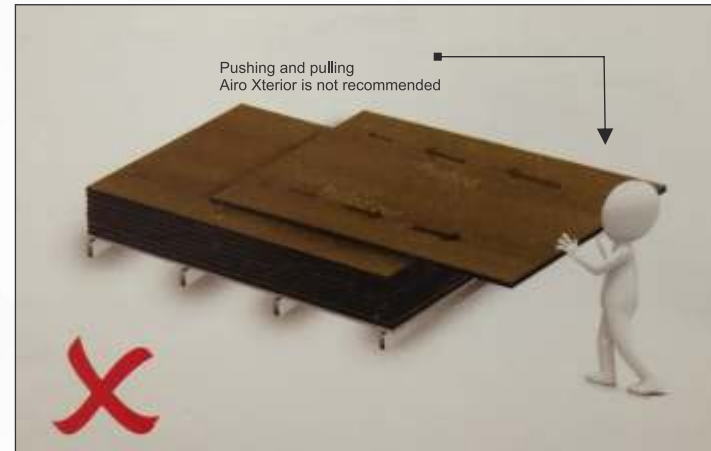
### DRILLING AND SCREW FIXING INSTRUCTIONS



Inserting the screw directly in the panels is prohibited, instead a hole should be made with a drill and then screw should be inserted (ensure that the diameter of the hole is 0.5mm less than the diameter of the screw.)

## MATERIAL HANDLING DURING TRANSPORTATION

### AIRO XTERIOR SHOULD NOT BE PUSHED OR PULLED



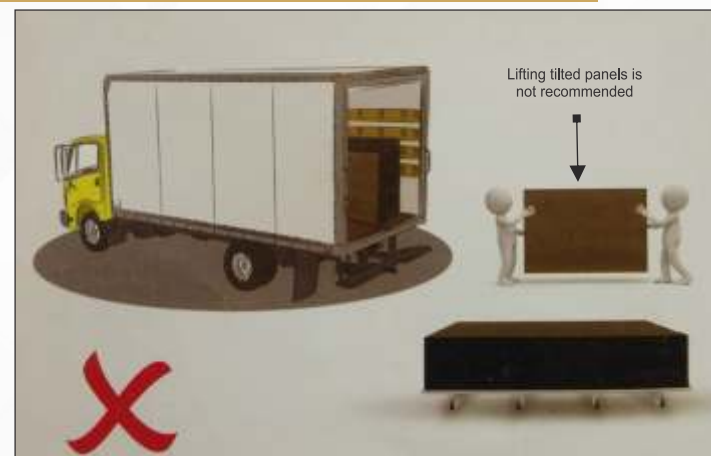
During loading / unloading no packet of Airo Xterior panels should be pushed or pulled out.

### AIRO XTERIOR SHOULD BE LIFTED PARALLEL FROM ALL CORNERS



AIRO XTERIOR EWC panels should be kept always horizontally inside the transport vehicle and during loading / handling.

### AIRO XTERIOR SHOULD BE LIFTED PARALLEL FROM ALL CORNERS



During loading\unloading no packet of AIRO XTERIOR Wall Cladding Compact panels should be pushed and pulled out.

## MATERIAL HANDLING NORMS

Storage and handling: Airo Xterior panel is a heavy material. During transport, use pallets to support the complete sheet area. Pallets should be strong and stable enough to support their load without bending or buckling.

When loading and unloading, do not push or drag panels over one another; lift cleanly by hand or suction device. Make stacked panels secure against slipping. The surface of each board must be free from debris, grit or foreign bodies which can damage the decorative surface.

Also, Airo Xterior panels undergo a certain amount of dimensional movement when subjected to humidity, hence to minimize the risk of bowing, take care of the following:

Dimensional movement across the width of the panel is twice as great as it is along the length, so cutting panels with the long dimension running across the width of the panel greatly increase the risk of bowing. Always cut the panels with the long edge parallel to the length of the panel.

Where panels are mounted on a wall, provide adequate ventilation to ensure that temperature and humidity conditions at the back of the panels are essentially the same as those in the front. As far as possible, the ambient conditions should be the same on each side of the panel, as it is important that both sides gain or lose moisture at roughly the same rate.

Making fixing centres sufficiently close to prevent movement: Store Airo Xterior Panels enclosed in warehouse where normal interior conditions (18 degree C – 25 degree C and 50% - 60% relative humidity) are maintained. The base board must be dry, and should ideally be covered with a material impervious to water, to act as a moisture barrier. Cover the top sheet of each stack with a moisture barrier/ cover board, with sufficient weight to remain flat in contact with the whole surface area of the Airo Xterior Panels. It will remain flat if stored horizontally in packs on a flat base board. Maintain procedure throughout the storage (whether in a warehouse or on the fabrication shop floor) and reinstate it whenever a sheet is removed from the stack. Failing to store these panels flat for any length of time causes deformation, difficult to rectify. If protective films are provided these should be removed from both sides of the board simultaneously.

Profile cutting and edge finishing: It is not necessary to apply edging strips or edge sealants to Airo Xterior Panels. For many applications, clean sawn edges are sufficient. For this type of work PCD tooling is recommended. It is not possible completely to avoid cutter marks, but they can be minimized by feeding the work at a constant controlled speed with a mechanical power feed. To achieve a superior finish or a profiled edge, use a spindle moulder or router. Take care to avoid pausing during cutting and profiling. To obtain clean edges free of cutters marks, carry out a further sanding and scraping operation. Buffing with steel wool and applying silicone free oil enhance edges. Chamfering or profiling the edges of Airo Xterior panels reduce the risk of edge impact damage.

Drilling: The most suitable drills for use on Airo Xterior Panels are those designed for plastic sheets. These drills have a point angle of 60 degree – 80 degree.

Working on a firm underlay, reduces the risk of break-out. To avoid break-out on the reverse side, gradually reduce the feed speed of the drilling head and the pressure applied when approaching the point of breakthrough. For blind boring into the face, the depth of the hole should be such that at least 1.5mm of material remains between the bottom of the hole and the other side of the sheet. This allows maximum depth of material to be used for fixings. TCT lip and spur drills produce clean flat-bottomed blind holes, with low risk of point penetration on the reverse side. When drilling parallel to the surface (edge drilling) at least 3 mm of material must be on either side of the hole. Threaded holes can be produced using engineer's screw cutting taps. Self-tapping screws or threaded brass inserts may also be used.

Sawing: Saw blades used for cutting double-sided composites are generally suitable for cutting Airo Xterior panels.

Saws of less than 2 mm thickness are not recommended

Break-out on the underside of Airo Xterior panels can be reduced by various methods:

Using a pre-scoring blade on the underside

Using a base-board of plywood or hardboard beneath the sheet

After the exit angle of the saw blade by adjusting the height setting

When sawing an Airo Xterior Panel with two decorative faces, the feed speed essentially governs the quality of the saw cut. A speed of 0.03 mm – 0.05 mm per saw tooth has been found to be the most successful.

Maintenance: Airo Xterior may be cleaned with damp cloth or ordinary soap. As HPL do not suffer from corrosion and oxidation, no further surface protection and no maintenance apart from cleaning is required.

Limited Warranty: Airo Xterior guarantees that Airo Xterior panels will continue to possess the properties as per requirement of EN 438-part-6 for a period indicated below from the date of delivery of the product to the buyer.

EWC – 10 years

- Slight homogeneous variation in colour may take place in course of time
- Guarantee will be valid when installation will be done according to Airo Xterior Installation Guidelines only.
- This will exclude if any damage been done by mishandling as a result of improper maintenance of the product
- Airo Xterior is suitable for normal usage and for severe heavy exposure to sunlight and weathering conditions

Limited Product Warranty

Airo Xterior warrants that under normal use of Airo Xterior panels, it will conform the properties as per specification of EN 438-part-6, for a period of 10 years from the date of delivery of the product to the first consumer purchaser, subject to following conditions –

- Slight loss of brightness or homogeneous variation in colour taking place in course of time of use is acceptable as per EN 438 Part 6.
  - The Warranty shall be absolutely non-transferable and any resale or transfer of any kind whatsoever, of the product by the first consumer purchaser shall render the warranty void.
  - This warranty shall not cover any damage or deviation from the standard EN 438 Part 6 set forth for Airo Xterior properties if it is caused by: a) Accidents, abuse or misuse; b) exposure to extreme temperatures; c) improper fabrication or installation; or (iv) improper maintenance, and Airo Xterior shall have the sole and absolute right to determine the reason for such damage or deviation.
  - This warranty shall be void, subject to other terms and conditions contained herein, upon non-production of the original warranty document, duly sealed and stamped on the date of purchase by Airo Xterior or by any of its authorized dealers.
  - Under no circumstances shall Airo Xterior be liable for any loss or damage arising from the purchase, use or inability to use the product or for any special, indirect, incidental or consequential damages.
  - In case of any dispute or differences which arise out of these warranty terms, the same shall be exclusively subject to jurisdiction.
  - These terms of warranty shall be deemed to have been accepted upon purchase of the product by the first consumer purchaser.
- \*Airo Xterior is suitable for normal usage.
- Warranty

## FAQ & CONDITIONS:

### 1. What is Airo Xterior?

Airo Xterior are high pressure laminates, which are highly durable and weather-resistant external wall covering panels. It is an engineered exterior façade panel, suitable for installation at multiple locations and structures. Airo Xterior is fire-proof, water-resistant, heat resistant and comes with no maintenance requirement.

### 2. What kind of Airo Xterior panels are available?

Airo Xterior has been developed to boost the exterior aesthetics of structures, and so they are offered in a number of colors and designs. Currently, Airo Xterior is available in 3 different sizes such as 1220x2440 mm, 1200x3050 mm and 1300x3050 mm.

Apart from that, the thicknesses available are 6 mm, 8mm and 10 mm. Other thicknesses can be requested as per requirement.

### 3. What are Airo Xterior Panels made of?

Airo Xterior is made of multiple layers of UV Protection film, Decorative paper and Kraft paper. The layers of paper are superimposed, impregnated with thermosetting resins and permanently bonded together by simultaneously applying heat and pressure.

### 4. How should Airo Xterior Panels be stored?

To avoid permanent deformation of the panels, storing instructions should be followed vigilantly. It is recommended that Airo Xterior should always be kept in their original packaging. Panels must be stacked horizontally on flat, stable supports and base panels. Protective cover panels must always be left on the stack.

### 5. Does Airo Exterior require any maintenance or service

No, Airo Xterior is a zero maintenance product, which does not require servicing. Even after cutting, edges do not require any post-processing.

### 6. Can Airo Xterior be installed without rear ventilation?

The installation of Airo Xterior without rear ventilation is not appropriate and we do not recommend it. A certain gap is left between the wall and the Airo Xterior panels, which helps the airflow from top to bottom. This airflow keeps the wall cooler in comparison to the ones not covered with the panels. This helps in keeping the inner temperature cooler, and it also saves energy.

### 7. What are the different ways that Airo Xterior can be installed on a structure?

There are 3 three different ways by which Airo Xterior can be installed to your walls. It is possible to install Airo Xterior with rivets, screws & a wooden structure, Adhesive systems, and an aluminum Z-clip fixing.

### 8. Is Airo Xterior fire-proof?

Yes, Airo Xterior is highly fire retardant and can withstand extreme flames and heat.

### 9. Is Airo Xterior environmentally sustainable?

Yes, Airo Xterior is environmentally sustainable. It is a green building material as it saves energy and its production does not leave a huge carbon footprint. Green building materials are especially best suited for regions that experience extreme temperature changes during a year.