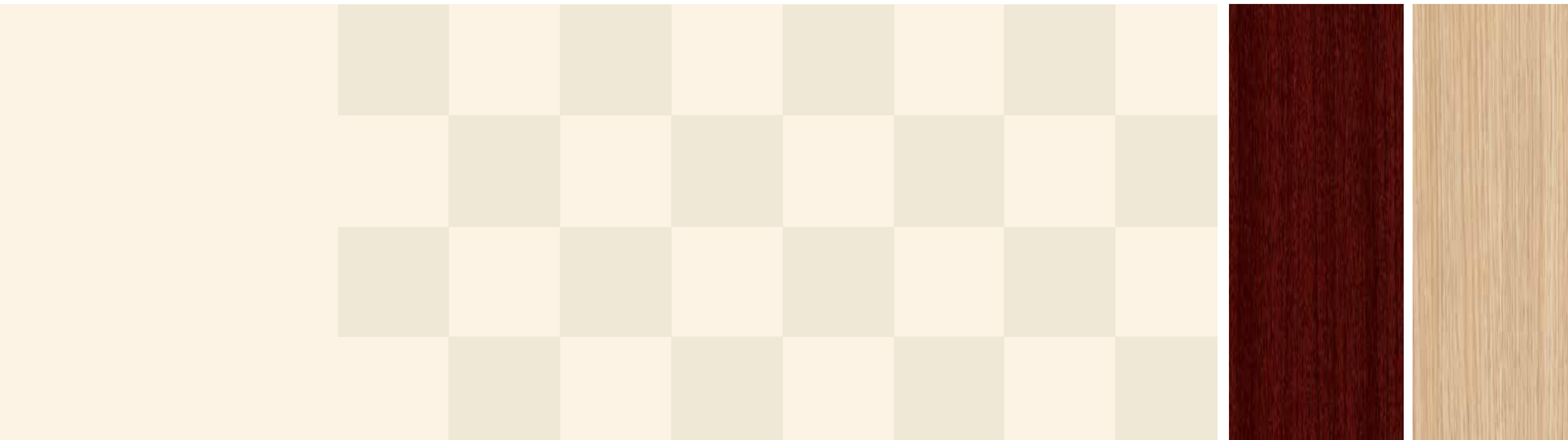


# G-Ext<sup>®</sup>

Exterior Decorative Panels

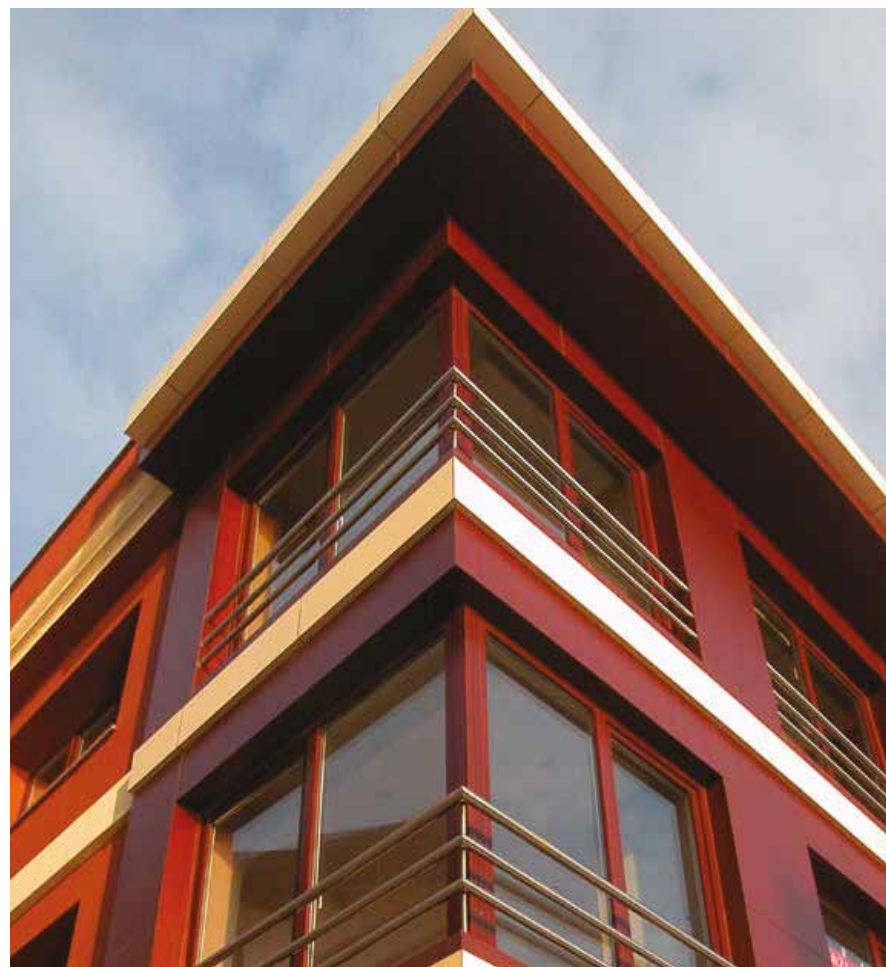


## Corporate Office:

APAAR Infratech Private Limited  
B-92, Sector-63, Noida – 201 301 (U.P.), India  
Tel: +91 120 4090900, Fax: +91 120 4090901  
E-mail: [info@apaar.in](mailto:info@apaar.in), Web: [www.apaar.in](http://www.apaar.in)

BRANCHES: DELHI, MUMBAI, AHMEDABAD, CHENNAI,  
BANGALORE, KOLKATA, SHILLONG





## APAAR....Executing your dreams

APAAR is an ISO 9001:2008 certified, diversified Construction Solutions Company offering specialized products and services in Architectural Products and Construction Chemicals to the Infrastructure & Construction industry. In operation since 2001, APAAR covers the entire country through a network of its own branches and associates. 'Local experience, Quality service & International standards' is the motto followed by us to provide specialized product systems and services to our esteemed clients.

With its dedicated team of trained professionals, APAAR has been successfully executing several large contracts on turn-key basis throughout India. In the short span of a decade, APAAR has earned a strong reputation of providing premium products and quality services matched with timely execution of large projects.

APAAR strives to be at the forefront of the industry requirements with the vision to forecast and meet future market demands with excellence. As a team we deliver products and services that meet

the quality, performance and price aspirations of customers.

Being the pioneers of introducing Exterior Façade Laminates in India, we are committed to working closely with architects, designers, fabricators, consultants, developers and contractors to help improve the standard and performance of Architectural products in India.

We proudly describe ourselves as the Caretakers of environment by adhering to the products and services that are environment friendly.



## ... Offering turn-key solutions

APAAR simplifies the complexity of facade design. We work with our customers to determine the optimal fixing solutions based on detailed project information. With our static calculation program, we provide fully engineered facade attachment solutions and optimize the quality of fixing elements that are used. In doing so, we contribute to the economic efficiency of the project.

Starting with the statics of the target, the installation plans are prepared for clear, easy and quick fastening. By maintaining an open dialogue with our customers, we are able to anticipate difficulties and possible improvements in the planning stage to help save with overall costs.

We work with facade manufacturers and architects country wide with regard to general and specific themes of rain screen wall design. Our trained team of designers and site engineers implement the product on sites matching scientific & technical guidelines with your unbound imaginations!

APAAR, with its intelligence, improvements and innovations, welcomes you to the world of Exterior Decorative laminates in this catalogue...



# GENTAS GROUP

GENTAS GROUP adopted investment in technology, quality, personnel, environment and future, as a worldwide company known through its innovations and quality. Thanks to its trademarks, professional sales network and experienced personnel, GENTAS achieved the success of being widely preferred in 6 continents and over 50 countries.

GENTAS LAMINATE performs production in 50,000 m<sup>2</sup> closed areas by putting new HPL, CPL and IMPREGNATION facilities into service. As a result of large scale investments, GENTAS LAMINATE is included among the limited number of world companies with its annual laminate production capacity of 24.5 million m<sup>2</sup>.

G-ext, which is a new generation product developed for construction and all kinds of siding applications, is one of the most powerful brands of Gentas in terms of quality. GENTAS, working closely with the world's most important and dependable accredited companies in terms of certification, is one of the few companies around the world performing production in accordance with the highest quality level EN 438-7 and European Norms Compliance 'CE' in addition to the various certificates obtained for its products.

GENTAS has crowned the wide experience of the years with MORE THAN 350 DIFFERENT DECORS and 24 various surface finishes providing the LATEST TRENDS in decoration to the customers.



## G-Ext® - a new vision

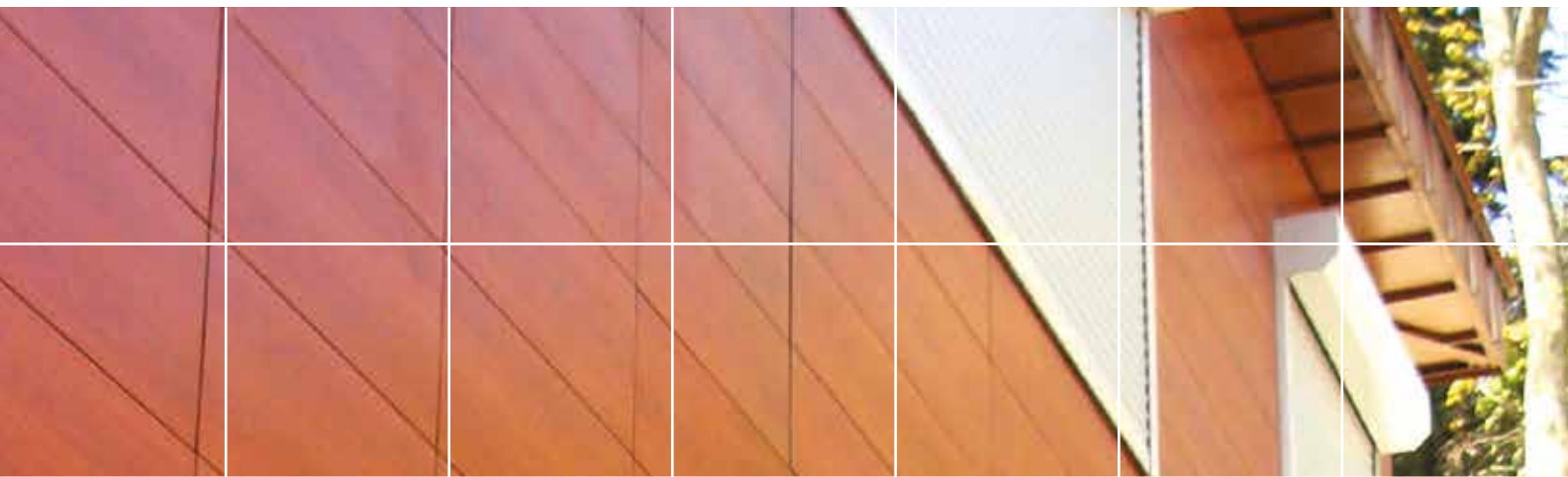
G-ext Exterior Grade Decorative Panels provides a brand new aesthetics look and elegance which has not been implemented until today. These panels are most colourful solution to be used for creative, decorative and architectural ideas while giving the buildings the warmth of the wood. G-ext is manufactured in various sizes, can easily be processed through wood equipments, which eliminates the application problems.

G-ext is an advanced technology product with U.V. resistance, scratch resistance, fire retardant and does not pose any risk for human health and environment. Facilitating movement to the exterior walls with its vast color and design options, easy clean and compliance with different implementations make G-ext a preferred product in its industry.

The surface of G-ext Exterior grade compact laminate is enhanced by using an Electron Beam Cure (EBC) system which is used by only a few leading firms of the world.







G-ext is highly durable to surface scratches and impacts. It does not break during the accidents (fall on the ground and similar situations) that occur during transfer to the work sites and deformation happened can be fixed on the spot with hand tools.

It is highly durable to chemicals. Solvent such as alcohol and acetone do not harm its surface and can easily be used for cleaning purposes.

Thanks to surface resistance, the effects of the pollution that occurs on the surface as a result of city environment can easily be cleaned.

In addition to being fire retardant, G-ext does not release poisonous gases during fire or similar situations.

It brings warmth to the application place with wood designs.

It helps to save time and money due to easy application.

## Advantages



## Surface Characteristics

The most important feature distinguishing exterior surface decorative panels from others is the advanced technology surface characteristics. Resistance to different weather conditions and climate changes, surface and color protection against UV rays, easy clean, fire retardant feature and not releasing poisonous gas are the important characteristics of this surface.

Fire retardant

Enables easy cleaning

Highly durable to humidity and vapor

Highly durable to corrosion and cracking

Extremely durable to impact and mechanic pressure

Does not include asbestos – chloride and toxic materials

Can be easily processed, cut, sized, drilled and formed

Does not melt during the fire, does not form fire drops, does not burst into flames and explode easily, do not release poisonous gases

G-ext exterior surface decorative panels delay the pollution thanks to its smooth, nonporous and even surface.





Mumbai, India



Ahmedabad, India

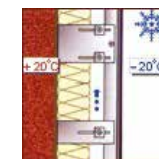
# Why Ventilated Façade System?

## THERMAL INSULATION



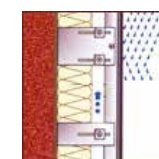
Ventilated Façade System ensures natural ventilation and reduces the amount of heat that buildings absorb in hot weather. Favourable microclimate and considerable reduction in the costs of air conditioning are achieved accordingly. In hot climate countries, thermal insulation effect is of crucial importance.

## HEAT INSULATION



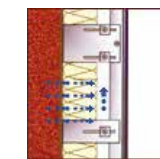
Ventilated Façade system is designed to protect the wall against condensation which causes deterioration of the heat-saving properties. It makes it possible to prevent considerable loss of energy. The heat insulation properties of the wall are considerably improved, resulting in heating costs savings.

## WEATHER RESISTANCE



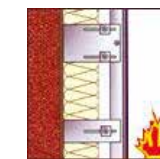
Moisture represents one of the main dangers for any construction. Ventilated facade protects a building from moisture penetration and facilitates its evaporation from the bearing wall surface. As a result, the amount of moisture in the wall decreases and the 'chimney effect' becomes stronger.

## DIFFUSION OF WATER VAPOURS



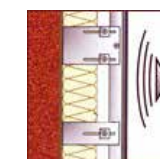
Water vapours occurring on the wall of a building are removed through natural ventilation. In this way the heat insulation properties of the wall are considerably improved and favourable temperature regime inside a building is reached.

## FIRE SAFETY



The constructive materials and elements belong to the category of inflammable or fire resistant ones, that prevent fire spreading in case of fire accident.

## SOUND INSULATION



Ventilated facade system tend to influence the function of external noise reflection and act as a sound insulating system depending upon the reflection, absorption and acoustic transmission of the materials used by the cladding and insulating materials.





Dimensions of **G-Ext®** Exterior Decorative Panels

| Length<br>(mm) | Width<br>(mm) | Area<br>(m <sup>2</sup> ) |
|----------------|---------------|---------------------------|
| 2800           | 1300          | 3.64                      |
| 3050           | 1300          | 3.97                      |

Thickness: 4 mm to 20 mm

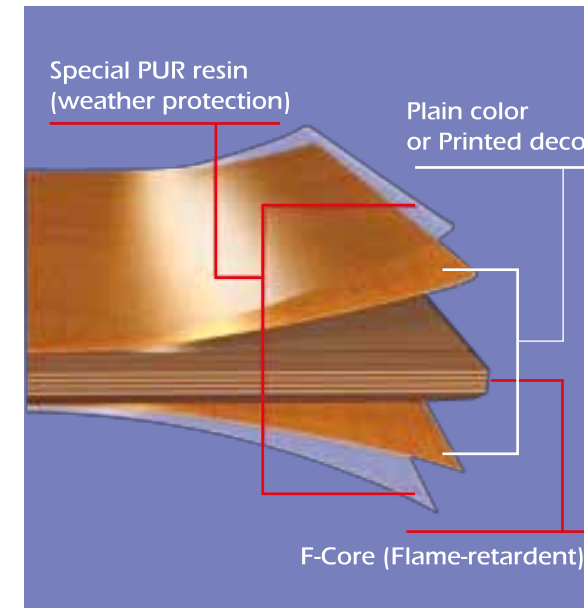
## Composition

G-ext Exterior Decorative Panels are produced by impregnating large amount of kraft papers having resin-absorbing capability by pressing under high temperature of 170° C and pressure of 120 kg/cm<sup>2</sup>. The high pressure and temperature provides molecular compaction of the mass and avoids formation of bacteria. For this reason, it is highly preferred by medical institutions. High pressure laminates have no alternatives especially for flat surfaces.

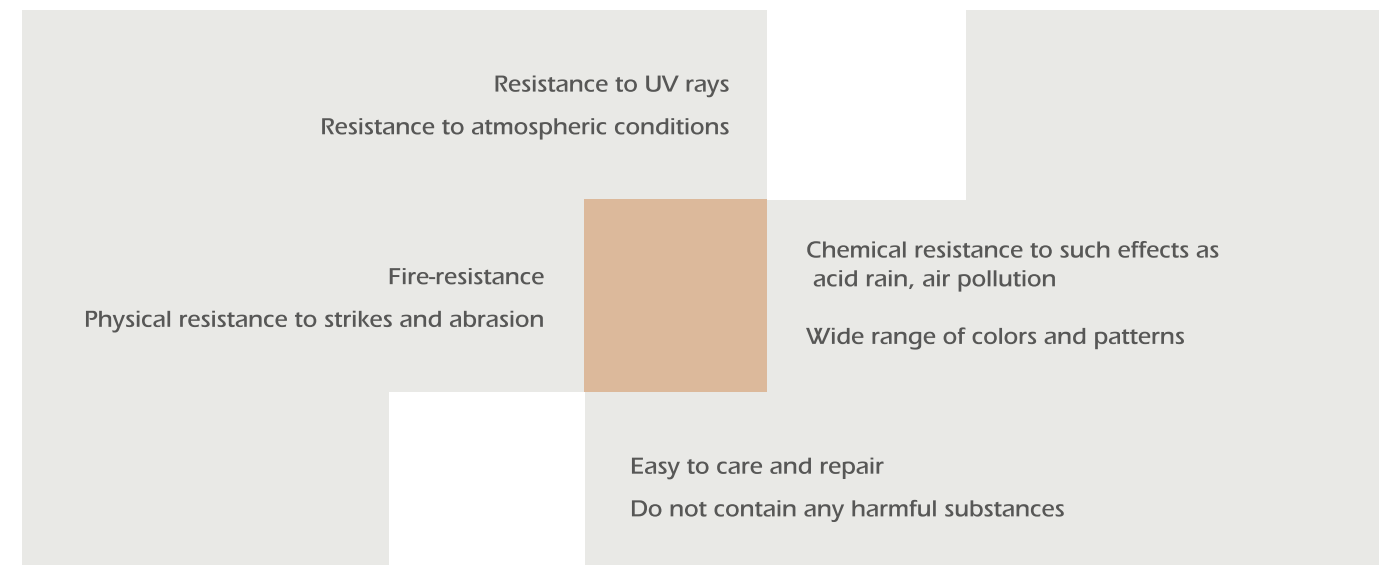
G-ext Exterior Decorative Panels are manufactured according to ISO 9001, EN 438-6 and EN 438-7 quality. The production is made in three different stages.

- Preparation of the paper
- Pressing
- Grinding and polishing with emery and giving dimensions

Due to the gap between the building surface and cladding panels, the buildings, decorated with Compact Laminate cladding systems, have maximum ventilation level together with prevention of humidity, heat losses and temperature drops. Wide range of colors and patterns offers more flexible and creative solutions in comparison with other metal and composite type cladding panels.



## Characteristics of **G-Ext®** Laminate Panels





| PARAMETER                              | G-Ext® VALUES  | STANDARD VALUES   | TEST METHOD                     |
|--|--|---|---------------------------------|
| Thickness                              | Between 4 - 20 mm  |   |                                 |
| Dimensions                             | 1300 x 2800 mm<br>1300 x 3050 mm   |   |                                 |
| Density                                | 1400 kg / m³   | 1350 kg / m³  | Norm EN ISO 1183-1              |
| Surface                                | Exterior Finish  |   |                                 |
| UV Resistant                           | Contrast : 4-5 (3000 hours)<br>Appearance : 5 (3000 hours)   | Contrast : 3(1500 hours)<br>Appearance : 5 (1500 hours)   | EN 438-6                        |
| Resistance against Scratches           | 4 N  | min 2 N   | EN 438-2                        |
| Resistance against Abrasion            | IP:200 , ORT:600   | IP≥150, (IP+FB)/2>350   | EN 438-2                        |
| Resistance against water vapor         | Degree 5 (in all types)  | Not worse than degree 4   | EN 438-2                        |
| Flame Reaction                         | B-s2-d0 (HPL-EGF for 6 mm and higher)<br>B-s1-d0 (HPL-EGS for 10 mm and higher)<br>D-s2-d0 (for all thicknesses) | B-s2-d0 (HPL-EGF for 6 mm and higher)<br>C-s2-d0 or better (for thickness HPL-EGF< 6 mm)<br>D-s2-d0 or better (HPL-EDS) | EN 13501-1                      |
| Water vapor permeability               | Wet case, μ110<br>Dry case, μ250   | Wet case, μ110<br>Dry case, μ250  | EN 438-7                        |
| Screwing from surface                  | 2200 N (for 6mm)   | 2000 N ( for 6 mm)  | EN 438-7                        |
| Bending resistance                     | 114 MPa  | Min. 80 MPa   | (Norm EN ISO 178)<br>EN 438-6/7 |
| Flexural modulus                       | 16522 MPa  | Min. 9000 MPa   | (Norm EN ISO 178)<br>EN 438-6/7 |
| Resistance against thermal shock       | Successful   | Successful  | EN 438-7                        |
| Pentachlorophenol                      | <5 ppm   | <5 ppm  | EN 438-7                        |
| Resistance against wet conditions      | Degree 5   | Appearance min degree 4   | EN 438-6                        |
| Resistance against climatic conditions | Contrast : 5<br>Appearance: 5  | Contrast : 3 min.<br>Appearance: 4 min.   | EN 438-6                        |



# Applications

Indian Construction industry has recently started to use compact exterior panels for exterior coverings of the most attractive buildings. These panels seen in important public buildings, new generation company headquarters, shopping centers and airport of the famous cities around the world, are preferred products by the architects due to its pastel color scale and natural wood designs.

G-ext exterior compact laminate panels are being used in any kinds of exterior covering applications such as residences, commercial buildings, shopping centers, banks, schools, airports, sports complex, public and private building and hospitals.



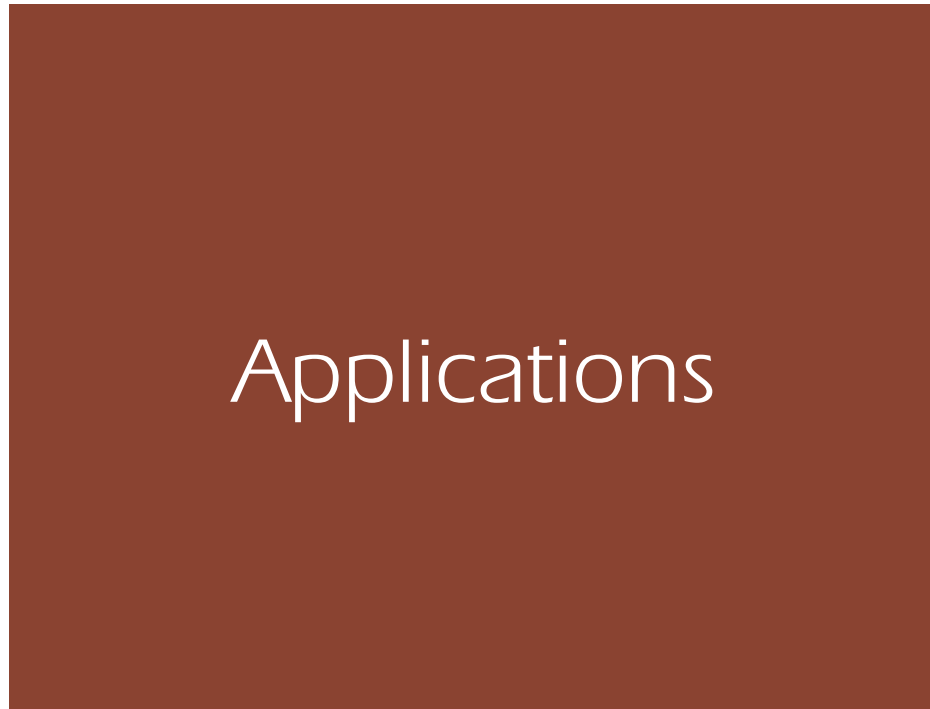
# Area of Usage

- FACADE CLADDINGS
- BALCONY CLADDINGS
- FENCES & RAILINGS
- GATE APPLICATIONS
- ATTIC CLADDINGS
- SPORTS FACILITIES
- BUSINESS ENTRY PORTALS
- ALL KINDS OF EXTERIOR COVERING APPLICATIONS





Moradabad, India



# Applications



Delhi NCR, India



Delhi NCR, India



Delhi NCR, India



Delhi NCR, India

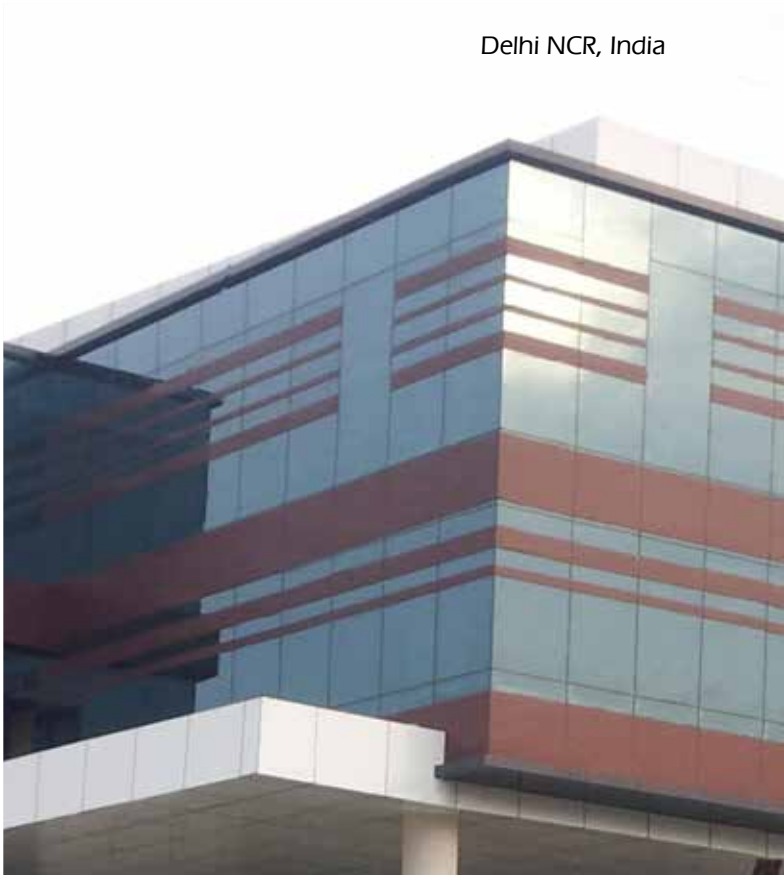


# Decors – Solid

|       |       |       |       |
|-------|-------|-------|-------|
| 3105  | 3000  | 3106  | 3129  |
| 3155  | 3153  | 3162  | 3190  |
| G3116 | G3131 | G3134 | G3137 |
|       | G3142 | G3149 |       |



Delhi NCR, India



Delhi NCR, India





# Decors – Stone & Granite



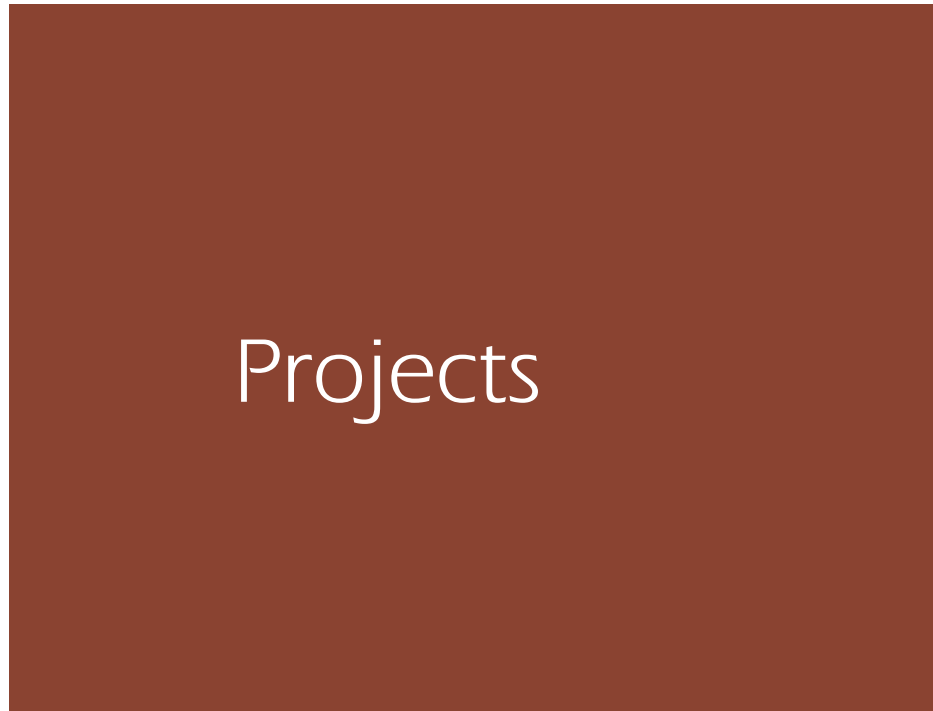
# Decors – Wood







Bhopal, India



Projects



Kolkata, India



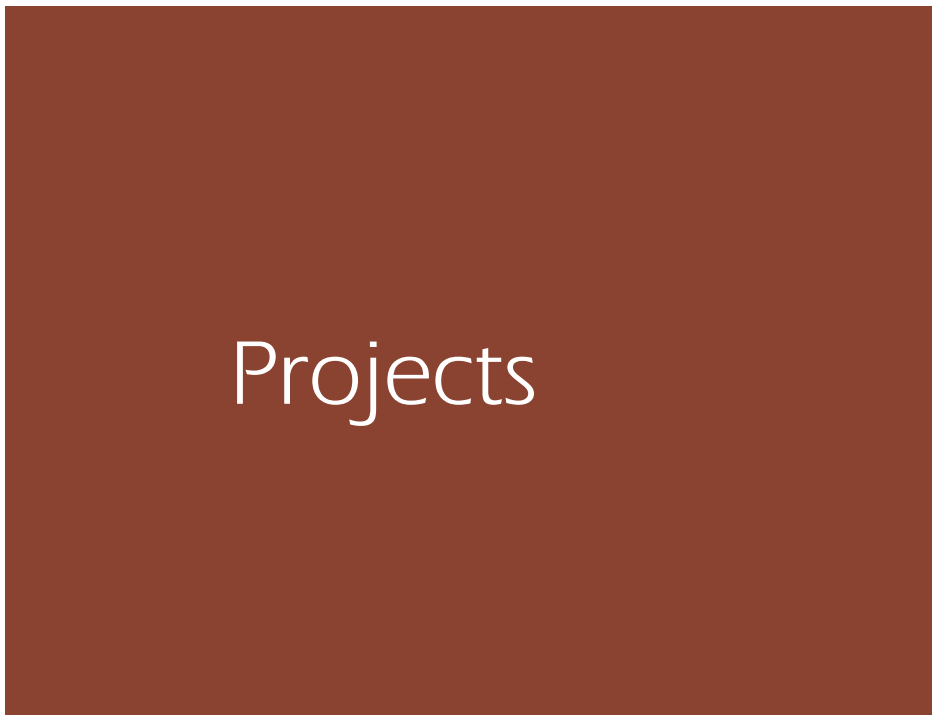
Delhi NCR, India



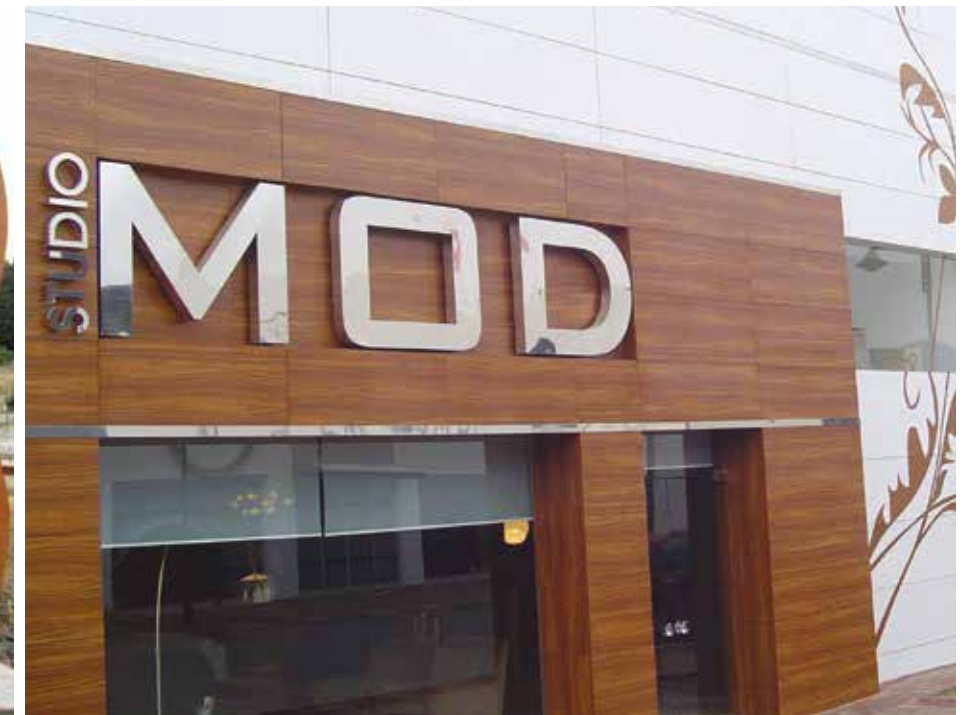




Delhi NCR, India



# Projects



Lucknow, India





# Installation Systems

## FIXING THE PANELS

Panels should not be installed too close together. Always allow for a degree of clearance by means of an expansion gap, the size of which can be calculated according to the dimensional variation of the panel. G-ext contracts in low humidity and expands in high humidity environments.

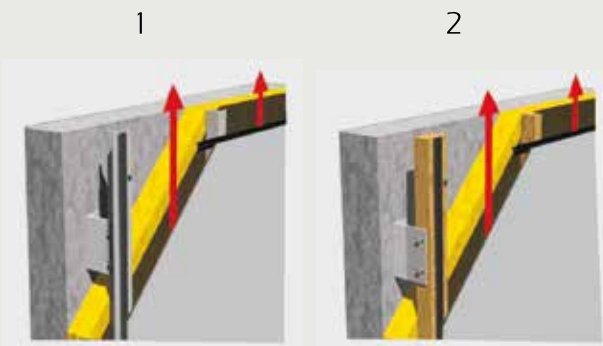
To achieve optimum assembly, all holes must have a diameter approximately 2mm greater than that of the fasteners. Never embed a screw head, as this will interfere with the expansion of the material.

## DRILLING PLAN (1)

For building over 20m in height, reduce the distance between fastening points in those areas most exposed to wind, such as upper floors and corners. It is, of course, recommended to always follow your local regulations and building standards.

## THE FIXED POINT RULE (2)

When fastening with systems that require drilling, it is advisable to adopt the rule of one fixed point and a number of sliding points. When joining two planes, the fixed point is positioned at the center of the sheet. Respect for the fixed point allows uniform longitudinal and transverse sliding of the edges of the sheet.



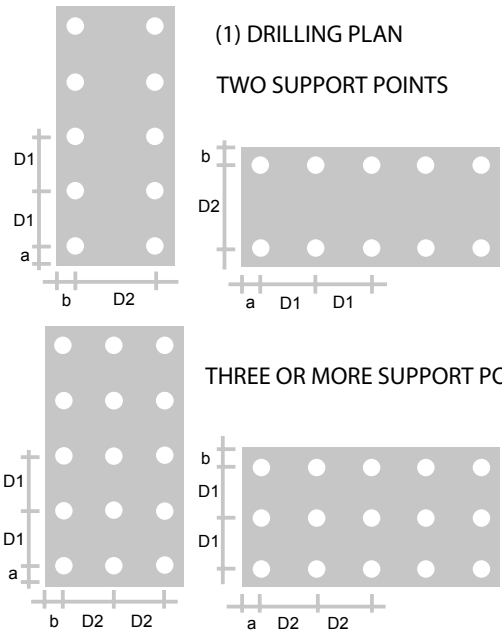
FIXING SYSTEMS FOR VENTILATED FAÇADE

“VISIBLE” FIXING ON ALUMINIUM SUBSTRUCTURE (1)

“VISIBLE” FIXING ON WOODEN SUBSTRUCTURE (2)

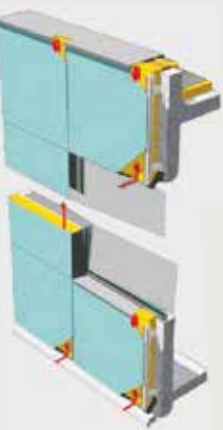
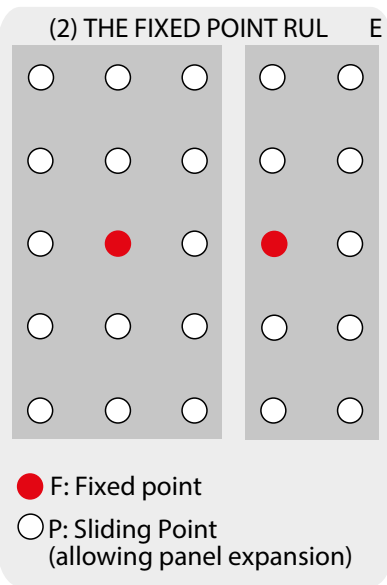


Aluminium Sub-structure on wall



| THICKNESS (mm) | MAX D1 (mm) | MAX D2 (mm) | a (mm) | b (mm) |
|----------------|-------------|-------------|--------|--------|
| 6              | 500         | 500         | 20-80  | 20-40  |
| 8              | 650         | 650         | 20-80  | 20-40  |
| 10             | 800         | 800         | 20-90  | 20-50  |

| THICKNESS (mm) | MAX D1 (mm) | MAX D2 (mm) | a (mm) | b (mm) |
|----------------|-------------|-------------|--------|--------|
| 6              | 650         | 650         | 20-50  | 20-40  |
| 8              | 800         | 800         | 20-80  | 20-40  |
| 10             | 950         | 950         | 20-90  | 20-60  |

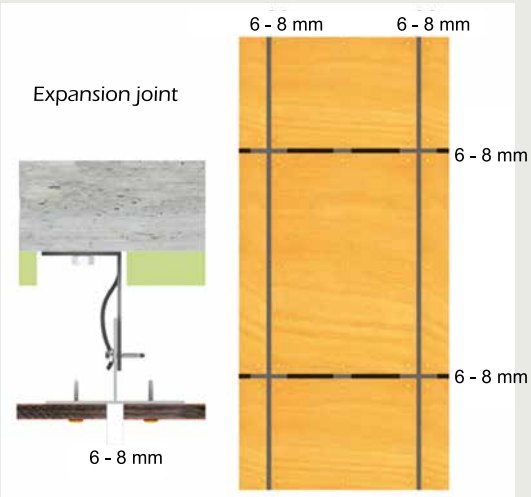


## VENTILATED FAÇADE

The concept of a ventilated facade is predicated on the creation of an air pocket between the facade's cladding and the structure of the building itself.

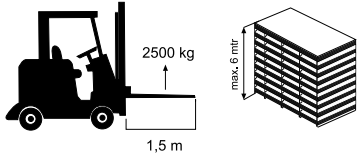
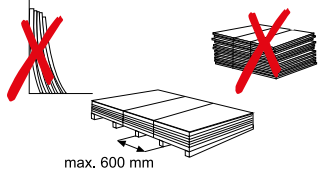
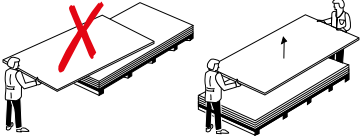
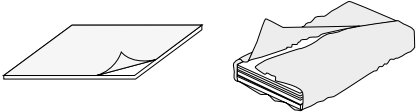
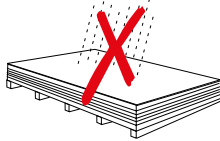
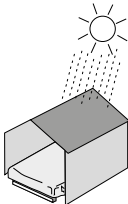
Such a cavity allows for air movement achieving a “chimney” effect (in the presence of a closed joint) or “localized ventilation” (in the presence of an open joint). The ventilation cavity must therefore be built to specific Parameters so as to allow for airflow.

This technology satisfies many requirements of facade design, greatly enhancing the building environment.





# Carriage and Storage Conditions

|  |   |   |
|--|---|---|
|  |    | Mind the weight and height of G-ext pallets while carriage                        |
| While storage mind the sheets must be parallel to the ground, top of each other aligned. Do not stand the sheets on vertical wall. Make sure there are no cavity between the sheets. |    |   |
|  |   | Sheets must be carried by at least two people, one by one or by fork lift gently. |
| Remove the foils within 24 hrs of the panels being removed from the pallet.  |  |   |
|  |  | Do not leave the sheets inside the pallet under the direct sunlight, rain etc.    |
| Please store the sheets in a dry, clean, frost free room.  |  |   |



## Environmental Declaration

APAAR and GENTAS are committed to continuous improvement of the environmental performances.

The production process of G-ext Exterior Decorative Laminates has been adapted to the environment thematic. The purity of the air and water is being efficiently protected in the production department area.

All the gases from the impregnation and pressing machinery are absorbed and eliminated in a special steam boiler. This important process is controlled by Gentas technical team and supervised by government authorities. The residues resulting from the production are efficiently treated in the factory area.

As another important part of care for the environment, all the raw material used for the production of the laminates are purchased only from suppliers who

are in possession of ISO 9002 and Kraft papers only from FSC certificated producers.

Gentas Kraft paper contains an important percentage of recycled paper and G-ext decorative laminates do not contain any of the following materials:

- Cadmium
- Chrome Hexavalent
- Lead
- Mercury
- Polybrominated Biphenils (PBB)
- Polybrominated Diphenylether (PBDE)

No efforts will be spared by APAAR and GENTAS to continue the implementation of all the necessary actions to achieve the best environmental performances needed.