Greenlam
Industries Limited

www.greenlamclads.com

# MORE PROTECTION ON YOUR WALL

**GREENLAM INTERIOR CLADDING SYSTEM**

Greenlam
Industries Limited

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/greenlamlaminate | /greenlamlam01 | /greenlam_laminates | /greenlamIndustries | /company/greenlam-industries-ltd

Greenlam | CLADS
INTERIOR GRADE COMPACT LAMINATES

**141** Beige

**Greenlam**

# CLADS
### INTERIOR GRADE COMPACT LAMINATES

GREENLAM
**ANTI-VIRUS**
**ANTI-BACTERIAL**
COMPACT
LAMINATES

## THE NAME OF TRUST IN
## SURFACE SOLUTIONS

**WELCOME TO A WORLD OF LIFE ENRICHING AND BEAUTIFUL SURFACES.**

Every artist needs a canvas. For Greenlam, every home is one. Present across more than 100 countries, Greenlam is India's no. 1, Asia's largest, and among the top 3 surfacing solutions in the world. With two state-of-the-art manufacturing facilities in the country, it is the first choice of home owners, architects, and interior designers when it comes to transforming living spaces. Its vast product offerings include - Laminates, Compacts, Exterior & Interior Clads, Restroom Cubicles & Locker Solutions, Decorative Veneers, and Engineered Wooden Floors and Doors.

# PROTECTION FOR WALLS

The Greenlam Interior Cladding System offers revolutionary cladding solutions for interior surfacing panels that are designed to withstand harsh conditions with as little maintenance as possible. Greenlam Interior Cladding System has seen immense success in application for areas like Healthcare, Shopping Malls, Airports, Educational Institutions, Commercial Spaces, Metro Stations, Railway Stations, and Hospitality Industry – and the secret lies in the unmatched technology that manufactures Greenlam Clads. They are designed to be fade-resistant, abrasion-resistant, anti-bacterial, weather-proof, and fire-resistant with high impact strength.

**INNOVATIVE WALL PROTECTION SYSTEM**

**275** Pearl Grey

**WAITING ROOMS**

**297** Blue Galaxy

**271** Light Orange

**738** Oak

**BEHIND THE BED**

**COMPLETE WALLS**

**277** Charcoal

**AIRPORTS**

**274** Pine Nut

**257** Olive

**HOSPITAL CORRIDORS**

## BOON TO
# THE SPACES

Even the toughest walls in high-traffic areas need protection. For those walls, this protection system comes as a shield against the accidental bruising, breakage, and scratching. On top of that, the system comes with Anti-Bacterial & Anti-Virus properties that are an added benefit for hospitals and schools where the environment demands ultra clean interiors. This easy-to-install wall protection system is thus, the need of the hour.

# 10X

# PROTECTION
## FOR YOUR WALLS

### Thicknes: 9 mm

Made from solid grade high pressure compact laminates, Clads Internal Wall Cladding panels are the true example of bold and beautiful. Their captivating aesthetics, numerous colour options, rhythms, and depth make these laminates win every heart.

From ease of installation to easy maintenance – our interior clads are planned for perpetuity, as seen with our 10 year warranty to make our systems a sheer winner against every possible challenge.

Along with that, they come with an assurance of being Anti-virus, Anti-bacterial, and Anti-fungal to keep you safe from all four sides.

| | |
|---|---|
| Water-Resistant | Anti-Virus |
| Easy Installation | Scratch Resistant |
| Easy to Clean/ Low Maintenance | Solvent Resistant |
| 10 Years Warranty | Abrasion Resistant |
| Impact Resistant | |

**275** Pearl Grey


**268** Dust


**738** Oak

# 3 SYSTEMS DESIGNED TO SUIT ALL YOUR REQUIREMENTS

No matter what your requirement is, we have a wall defence system for all your needs.

Greenlam Interior Grade Compact Laminates come with 3 unique systems that can be used in any application space and style that you like.

These are designed to protect different areas of your wall

## ALPHA / BETA / ZIGMA


**274** Pine Nut


**277** Charcoal


**5427** Refresh Oak

# SYSTEMS OF SUPPORT

Greenlam Interior Grade Compact Laminates offer 3 different systems to protect different areas of the walls.



## ALPHA
**DESIGNED FOR
BEHIND THE BED WALLS**

# INSTALLATION POSSIBILITES

### ALPHA WITHOUT SKIRTING PROFILE

ALPHA is an internal cladding system which ensures the protection of wall along with cleanliness, maintaining hygiene, safety, and giving seamless look to the wall. The specially designed top cover profile 1 is used to merge the cladding with the existing wall above and also to close the gap between them providing flushing detail between the two materials. This system is designed primarily for dry walls. The two bottom profiles 4 & 5 are designed for giving complete floor/wall corner connection detail and also providing closed bottom detail respectively.

**Fixing System Details- Top Cover:** Profile 1 + Profile 2 | **Mid Junction:** Profile 3
**Bottom Cover 1:** Profile 4 | **Bottom Cover 2:** Profile 5
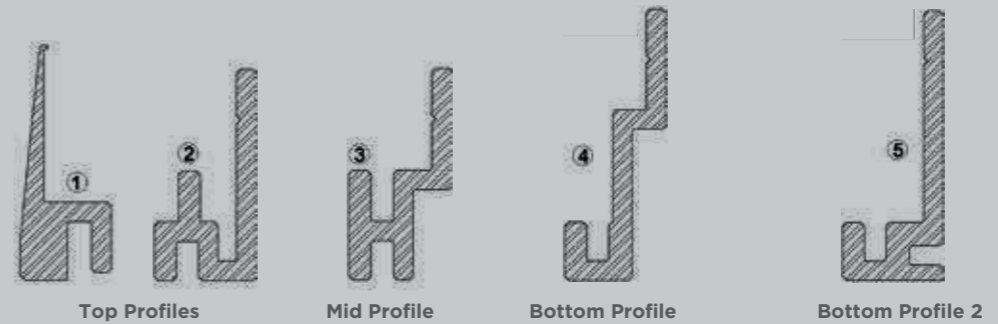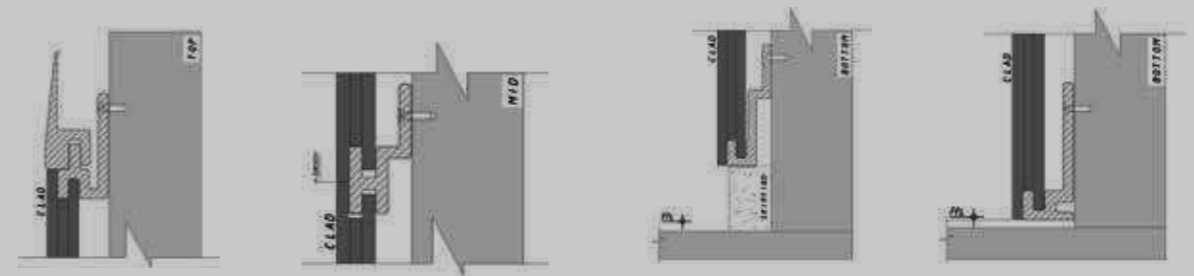


| Top Profiles | Mid Profile | Bottom Profile | Bottom Profile 2 |

Before installing, fix a self adhesive aluminum foil of thickness (50-80 micron) that acts as a moisture barrier.

# SYSTEMS OF SUPPORT
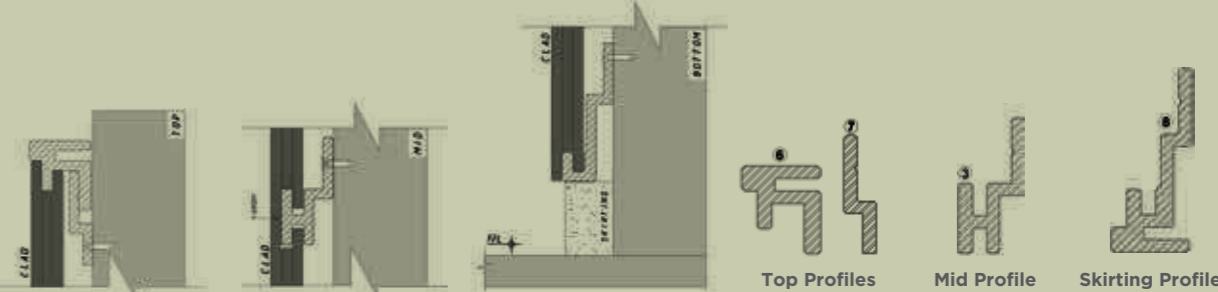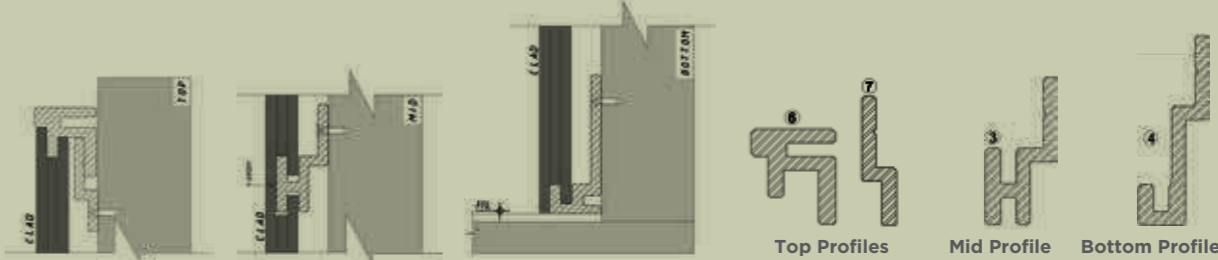
## BETA
### DESIGNED FOR OPD WALLS

268 Dust

# INSTALLATION POSSIBILITES

## BETA WITHOUT SKIRTING PROFILE

BETA is an internal cladding system which ensures the protection of wall along with cleanliness, maintaining hygiene, safety, and giving seamless look of the wall. The specially curated top cover profile 6 is used to close the top open end of the cladding system and also holds the top panel providing maximum strength to the paneling system. Primarily it is suggested for Internal & External corners .The bottom profiles 4 is designed such that it can accommodate the open ends of the flexible flooring materials.

**Fixing System Details- TOP COVER:** Profile 6 + profile 7 | **MID JUNCTION:** Profile 3
**BOTTOM COVER:** Profile 4

Top Profiles    Mid Profile    Skirting Profile

Before installing, fix a self adhesive aluminum foil of thickness (50-80 micron) that acts as a moisture barrier.

## BETA WITH SKIRTING PROFILE

BETA is an internal cladding system which ensures the protection of wall along with cleanliness, maintaining hygiene, safety, and giving seamless look of the wall. This system specializes in providing closing detail of the bottom giving minimalistic metal skirting look to the same through profile 8.

**Fixing System Details- TOP COVER:** Profile 6 + profile 7 | **MID JUNCTION:** Profile 3
**BOTTOM COVER:** Profile 8

Top Profiles    Mid Profile    Bottom Profile 1

Before installing, fix a self adhesive aluminum foil of thickness (50-80 micron) that acts as a moisture barrier.

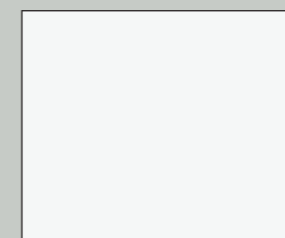# SYSTEMS OF SUPPORT

## ZIGMA
**DESIGNED FOR CORRIDORS**

**141** Beige / **163** Bay

# INSTALLATION POSSIBILITES

ZIGMA is an internal cladding system which is exclusively designed for covering wall between the doors & windows. The top cover profile 9 provides curvaceous detail at the ends giving maximum hold and takes care of alignment of the system. It can also be given on three or even four sides of the wall making it ideal for the same. This system focuses on the protection of wall along with cleanliness, maintaining hygiene and giving seamless look to the same.

**Fixing System Details- Top Cover:** Profile 9 + Profile 2 | **Mid Junction:** Profile 3
**Bottom Cover 1:** Profile 4 | **Bottom Cover 2:** Profile 5
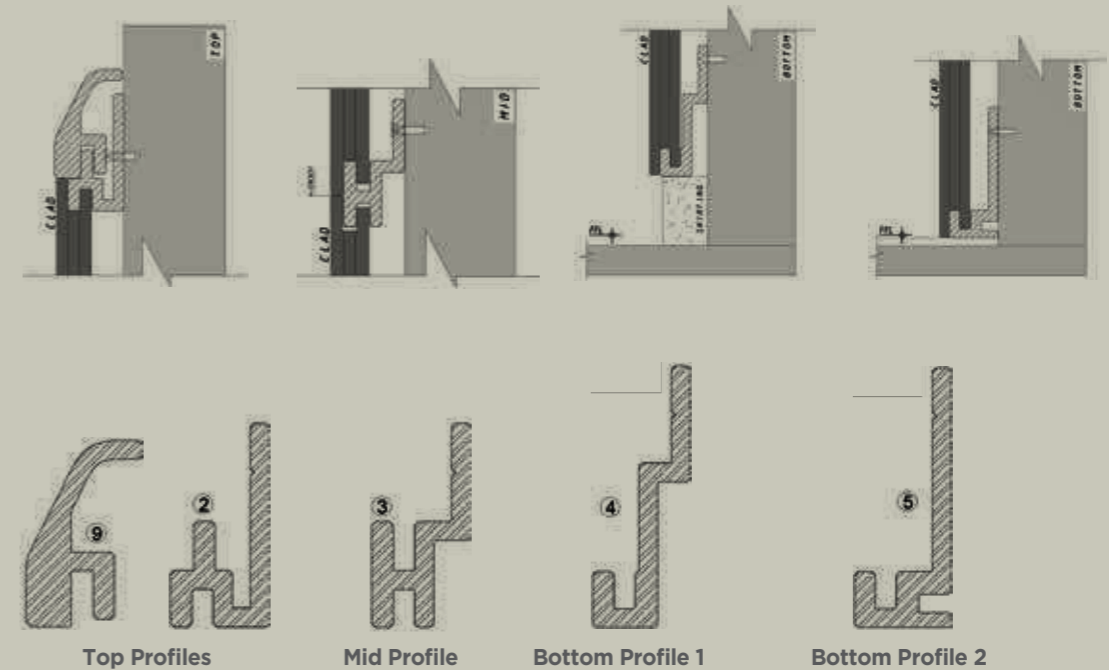
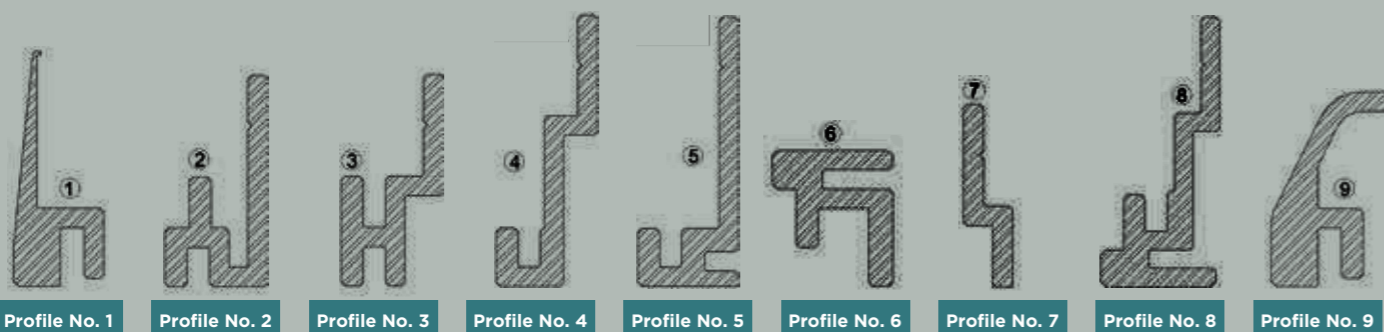**Top Profiles**     **Mid Profile**     **Bottom Profile 1**     **Bottom Profile 2**

Before installing, fix a self adhesive aluminum foil of thickness (50-80 micron) that acts as a moisture barrier.
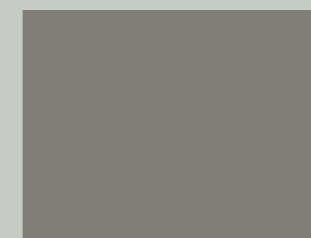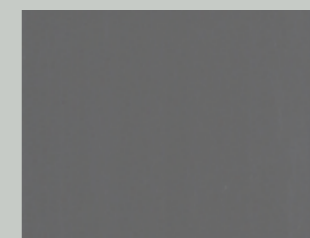
# PROFILE TYPES

# AFX
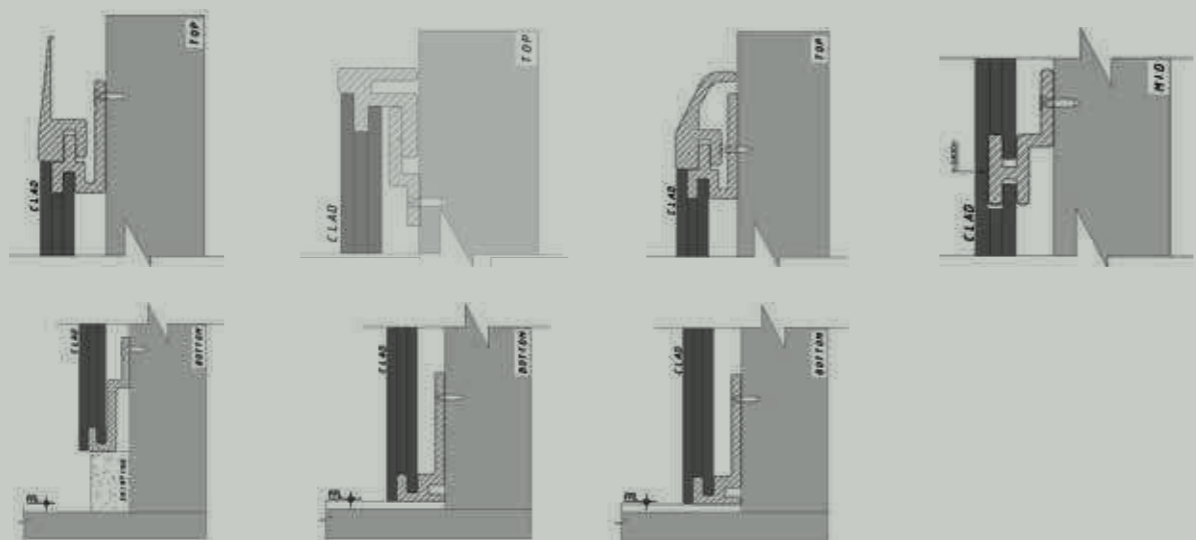


**MID PROFILE (PROFILE-3)** is an extrusion which is used as an intermediate connector between the panels of all 3 cladding systems horizontally and vertically as well. The normal width of panels in all the systems is of size 610mm (W) x 915mm (H). Whenever height of the panels exceeds 600mm, then profile Z is used to strengthen the system.
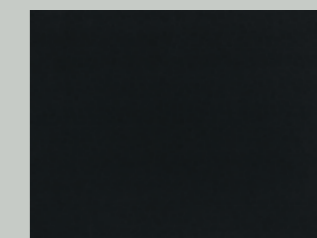


| Profile No. 1 | Profile No. 2 | Profile No. 3 | Profile No. 4 | Profile No. 5 | Profile No. 6 | Profile No. 7 | Profile No. 8 | Profile No. 9 |

**9851**
White X

**9852**
Eden Grey

**9853**
Anthracite

**9861**
Black X

**9858**
Victorian Violet

**9857**
Country Blue
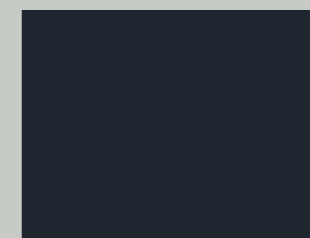
**9860**
Twilight Blue
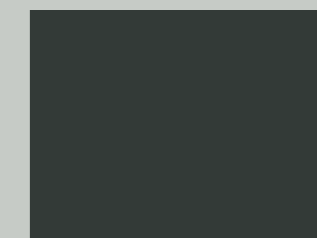
**9859**
Sea Weed Green

**9854**
Dove

**9856**
Coffee Bean

**9855**
Basalt Grey

Printed colours may vary. Please refer the actual laminate sample.
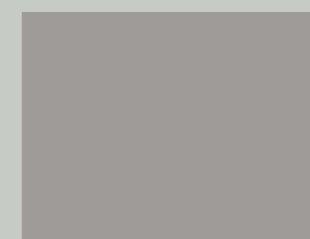
**695**
Baverian Beech

**711**
Siam Teak

**5006**
Thansau Maple

**5018**
Brooks Walnut

# WOODS
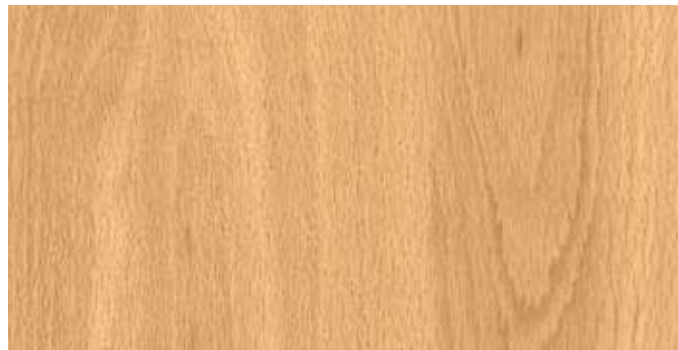
**719**
Mangfall Beech
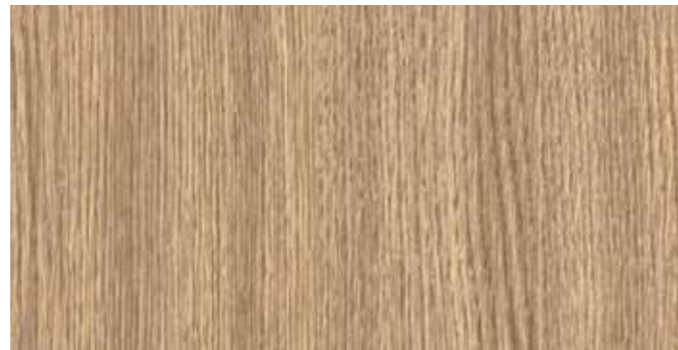
**738**
Oak

**5049**
Red Oak

**5076**
Primeval Oak

**5003**
Phillipine Teak

**5004**
Lorraine Walnut

**5331**
Midnight Acacia

**5338**
Steamed Beech

Available in the following sizes: 1220mm(W) x 2440mm(H) & 600mm(W) x 900mm(H) | Printed colours may vary. Please refer the actual laminate sample.        Available in the following sizes: 1220mm(W) x 2440mm(H) & 600mm(W) x 900mm(H) | Printed colours may vary. Please refer the actual laminate sample.

**5353**
Rosenheim Elm

**5416**
Glacier Oak

**5427**
Refresh Oak

**9610**
Pure Ash

**9611**
Innate Ash
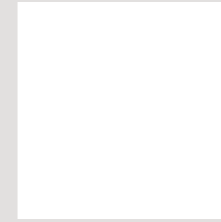
# COLOURS

**101**
White
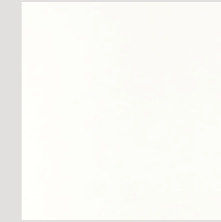
**107**
Wool
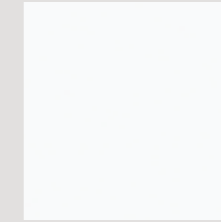
**111**
Designer White

**121**
Ivory

**124**
Mysore Ivory
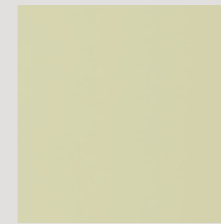
**132**
Cyclone
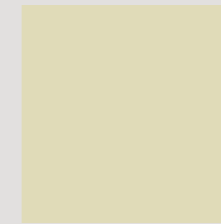
**133**
Moon Stone

**141**
Beige

**161**
Hot Pink

**163**
Bay

**173**
Barbie Pink
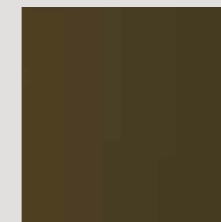
**181**
Chocolate

**201**
Maroon

**204**
Red Dynasty

**207**
Divine Yellow
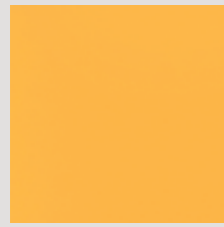
**217**
Light Orange
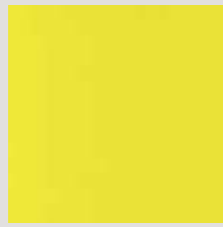
**229**
Yellow
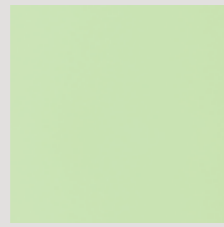
**247**
Dutch Green

**257**
Olive

**259**
Lime
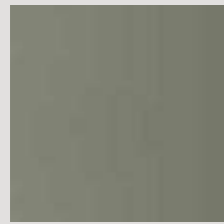
**261**
Dark Grey
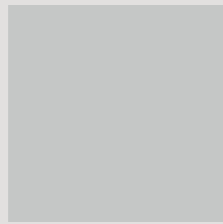
**262**
Grey
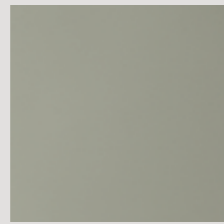
**266**
Ash Grey
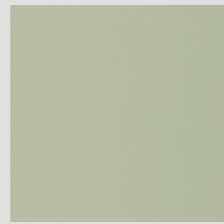
**268**
Dust
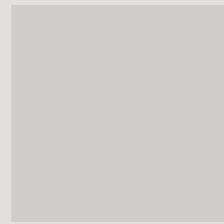
**270**
Silver Grey
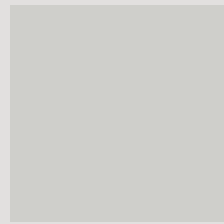
**271**
Light Grey

**274**
Pine Nut
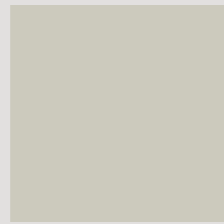
**275**
Pearl Grey

**277**
Charcoal
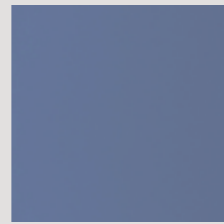
**280**
Blue
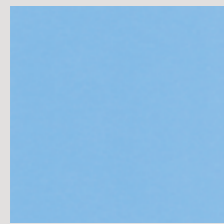
**284**
Ozone

**291**
Electric Blue
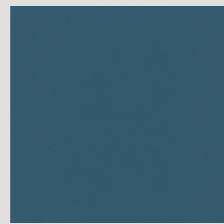
**297**
Blue Galaxy
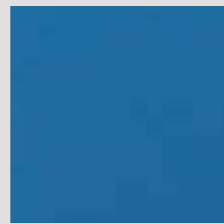
**304**
Blue Bell
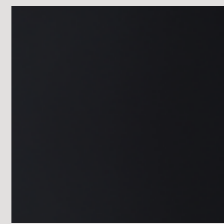
**401**
Black

**923**
Meta Silver

**5566**
Clear Mesh
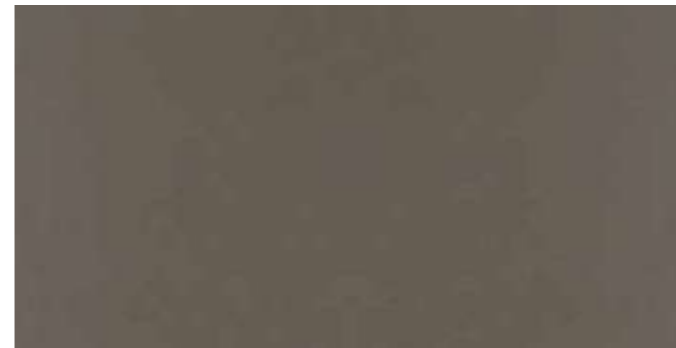
# PATTERNS

**5568**
Smoky Mesh
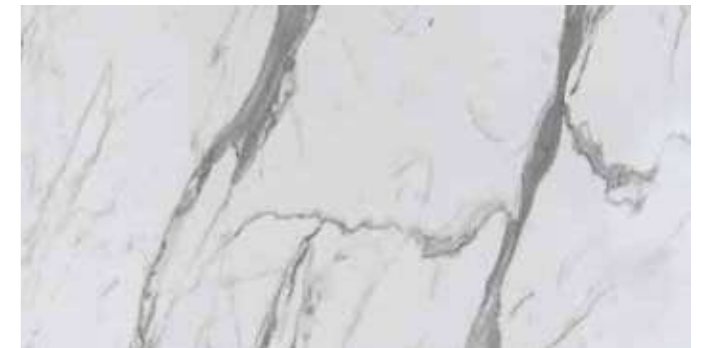
**5574**
Statuario

**5575**
Black Marmor

## FINISHES

ALL COLOURS - AVAILABLE IN SUEDE / GLOSS
ALL WOODS AND PATTERNS - AVAILABLE IN SUEDE / GLOSS / VRB & SATIN

Available in the following sizes: 1220mm(W) x 2440mm(H) & 600mm(W) x 900mm(H) | Printed colours may vary. Please refer the actual laminate sample.

Available in the following sizes: 1220mm(W) x 2440mm(H) & 600mm(W) x 900mm(H) | Printed colours may vary. Please refer the actual laminate sample.

# TECHNICAL
# SPECIFICATION

**Greenlam Interior Cladding Grade Compact Laminate - CGS-9.00mm**

| S.No. | Performances Properties | Ref. Clause as per EN 438-2 & 4 :2016 | Unit | Specified values as per EN 438- 4 :2016 | Greenlam Interior Clads' values |
|---|---|---|---|---|---|
| 1 | Thickness | EN 438-2: 5 | mm | 9.0 ± 0.50 | 8.75 to 9.10 |
| 2 | Flatness of Panel | EN 438-2 : 9 | mm/M | max 5.0mm/ M | Complies |
| 3 | Length & Width of Panel | EN 438-2 : 6 | mm | +10 mm/-Nil | +5 mm/-Nil |
| 4 | Straightness of Edges | EN 438-2 : 7 | mm/M | 1.50 Max deviation | 1.00 Max. deviation |
| 5 | Squareness | EN 438-2 : 8 | mm/M | 1.50  Max deviation | 1.00 Max. deviation |
| 6 | Resistance to surface wear | EN 438-2 : 10 | Revolutions IP | 150 minimum | Complies |
| 7 | Resistance to immersion in boiling water | EN 438-2 : 12 | | | |
| | Mass Increase | | % | 2.0 maximum | Complies |
| | Thickness Increase | | % | 2.0 maximum | Complies |
| | Surface Rating | | Rating | 4,  Suede Finish | Complies |
| | Edge Rating | | Rating | 3, Suede Finish | Complies |
| 8 | Resistance to impact by large diameter ball | EN 438-2 - 21 | mm | 1800 (Drop Height) | 2000 (Drop Height) |
| 9 | Resistance to water vapor | EN 438-2 : 14 | Rating | 4,  Suede Finish | Complies |
| 10 | Resistance to dry heat (160°C) | EN 438-2 : 16 | Rating | 4,  Suede Finish | Complies |
| 11 | Resistance to wet heat (100°C) | EN 438-2 : 18 | Rating | 4,  Suede Finish | Complies |
| 12 | Resistance to crazing | EN 438-2 : 24 | Grade | 4,  Suede Finish | Complies |
| 13 | Dimensional Stability at Elevated Temperature | EN 438-2 : 17 | | | |
| | Longitudinal | | % | 0.30(max.) | 0.20 max. |
| | Transverse | | % | 0.60 (max) | 0.49 max. |
| 14 | Resistance to Scratching | EN 438-2 ; 25 | Rating | 3, Suede Finish | Complies |
| 15 | Resistance to Crazing | EN 438-2 ; 24 | Rating | 3, Suede Finish | Complies |
| 16 | Resistance to Staining | EN 438-2 ; 26 | | | |
| | Group 1 &t 2 | | Rating | 5 | Complies |
| | Group 3 | | Rating | 4 | Complies |
| 17 | Flexural Modulus | EN ISO 178:2003 | Mpa | 9000 (min.) | 9600 |
| 18 | Flexural Strength | EN ISO 178:2003 | Mpa | 80 (min.) | 95 |
| 19 | Density | EN ISO 1183 -1:2004 | g/cm3 (min) | 1.35 (min.) | 1.40 ± 0.05 |

## LIGHT FASTNESS

| | | | | | |
|---|---|---|---|---|---|
| 1 | | Contrast EN 438-2 ; 27 | Grey Scale Rating | 4 to 5 | Complies |

## FIRE PERFORMANCE

| S.No. | Performance Property | Test Standard | Unit | Performance Levels | Greenlam Interior Clads' values |
|---|---|---|---|---|---|
| 1 | | Classification standards  EN 13501-1 : 2007 Tested according to EN 13823:2010 & EN 11925-2 :2010 | Euro class | Classification t≥ 6mm | D-S2, d0 CGS B-S1, d0 CGF* |

*Fire retardant variant*

| Gold standards for chemical emissions | | Unit | Specified values  as per UL 2818-2013 | Greenlam Interior Clads' values |
|---|---|---|---|---|
| 1 | TVOC | mg/M3 | 0.22 Maximum | Meets |
| 2 | Formaldehyde | µg/M3 | 9 Maximum | Meets |
| 3 | Total Aldehydes | ppm | 0.043 | Meets |

| Resistance to fixing | Unit | Specified values  as per ISO13894-1:2000 TM 15 | Greenlam Interior Clads' values |
|---|---|---|---|
| Screw Holding Capacity | N | 3000 | Meets |

| Thermal Resistance property | Unit | Test method as specified in EN 12524, EN 12664 | Greenlam Interior Clads' values |
|---|---|---|---|
| Thermal Conductivity | W/m°K | | 0.24 |

| Biochemical Property | Unit | Test Method | Specified value | Greenlam Interior Clads' values |
|---|---|---|---|---|
| Anti-Viral Efficacy & activity | | | | |
| % Reduction in 24 hours | % | ISO 21702-2019 | 95% (min.) | 99.9% (min.) |
| Activity after 24 hours | Log Reduction | | 2.0 (min.) | Exceeds |
| Anti-bacterial Efficacy & activity | | | | |
| % Reduction in 24 hours | % | JIS 2801-2012 | 95.0 (min) | 99.99 |
| Activity after 24 hours | Log Reduction | | 2.0 (min) | Exceeds |
| Anti-Fungus Efficacy | | ASTM G-21-2015 | | |
| Growth after 28 days | Rating | | 1 | 0 ( No Growth) |

- Virus Tested:      MS2 Bacteriophage
- Bacteria Tested:   1. Pseudomonas Aeruginosa, 2. Enterococcus Faecalis, 3. Candida Albicans, 4. Pseudomonas Aeruginosa,
     5. Escherichia Coli, 6. Klebsiella Pneumoniae, 7. MRSA (Methicillin Resistant Staphylococcus Aureus), 8. Salmonella Enterica
- Fungus Tested  :   1. Aspergillus niger, 2. Penicillium funicolosum, 3. Gliocladium virens, 4. Chaetobium globosum 5. Aurobasidium pullulans

# OUR COMMITMENT TO
# PRODUCT CREDENTIALS

### Safe and Healthy Living
The entire range is manufactured with Safeguard Plus™ Technology, a revolutionary development that retards viruses, bacteria, and fungi. This means our products are ideal for environments that range from laboratories and kindergartens to offices and domestic environments.

### GREENGUARD Certification
**GREENLAM** laminates are classified under the Low Emitting Product category when measured for potentially harmful emissions. This is an assurance that our products are ideal for use in interior environments where air quality is vitally important.

### GREENGUARD Gold Certification
This certification, with a stricter criteria, means that **GREENLAM** products are suitable for use in environments where children spend significant periods of time, including schools, daycares and healthcare facilities.

**GREENLAM** products have been awarded CE certification which is given to those manufacturers who declare that the product complies with the essential requirements of the relevant European health, safety, and environmental protection legislation, in practice by many Product Directives. CE Marking on a product indicates to governmental officials that the product may be legally placed on the market in their country.

All **GREENLAM** Laminates are certified by prestigious American body NSF International, making them the safest laminates for human health, our surfaces can be used in situations where they will have direct contact with food. Our surfaces have also been tested in accordance with EC directive 1935 with regards to food safety. Our products were proved fully compliant through testing to the demanding EU Food Commission Regulation 10/2011 with successful testing to BSEN 1186-1:2002, BSEN 1186-3:2002 & BSEN 1186-14:2002.

The FSC®certification is considered the "gold standard" designation for wood harvested from forests that are responsibly managed, socially beneficial, environmentally conscious and economically viable. If a product, like a peace of tropical hardwood furniture, is labeled as "FSC® Certified", it means that the wood used in the piece and manufacturer that made it met the requirements of the Forest Stewardship Council®. In our case, we can provide FSC® grade laminate for any project which wants to earn LEED points for Green building certifications.

# INTERIOR CLADDING-BOQ

The product is 9mm thick and conforms to EN 438-4 standards. Scope of work involves dimensional assessment of site and necessary grooving on all sides of the product to be fixed with standard aluminium profiles. On top of self-adhesive aluminium foils as per manufacturers' specifications, that are of different variants provided to suit functional and application requirements.

| | | |
|---|---|---|
| Thickness of Compact Laminate | : | 9mm |
| Colour of HPL Boards | : | From Greenlam approved ranges |
| Size of Board | : | 1220mm (W) x 2440mm (H) / 600mm (W) x 900mm (H) |
| Profile Details | : | As given in Greenlam Brochure from 1 to 9 to be used as per application |
| Overall Height of Wall | : | As per site conditions (Excluding bottom gap of 100 mm) |
| Accessories | : | Standard - Greenlam makes aluminium anodized support profiles |
| | | a) Self-adhesive aluminum foil with minimum thickness of 50 micron |
| | | b) Plastic Spacer disc - 2mm |
| | | c) Plastic Wall Plugs - 8mm x 51mm |
| | | d) Counter Sunk Screw (4.8mm x 32mm) with spacer |

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the E-Catalogue

**BRANCH OFFICE:**

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