

PRODUCTS:  
EXTERIOR GRADE COMPACT HPL  
INTERIOR GRADE COMPACT HPL

  
**SAMRAT**<sup>®</sup>  
**HPL**  
— Inspired by Nature —

# HPL



VOLUME. 1

# CONTENTS

- **ABOUT US**
- **SAMRAT HPL PRODUCT**
- **WHAT IS HPL?**
- **WHAT MAKES SAMRAT HPL SPECIAL?**
- **ENVIRONMENTAL AND HEALTH ADVANTAGES OF SAMRAT HPL**
- **WHY USE SAMRAT HPL?**
- **CHARACTERISTIC ADVANTAGES OF SAMRAT HPL**
- **FEATURES**
- **APPLICATION FIELDS FOR HPL**
- **PRODUCT ADVANTAGES OF HPL**
- **QUALITY ASSURANCE**
- **TRUST**
- **PRODUCT CONSTRUCT**
- **PRODUCT SPECIFICATIONS**
- **WOODEN**
- **MARBLE**
- **PLAIN COLORS**
- **TECHNICAL DATA SHEET**



# ABOUT US

**37**  
YEARS OF SUCCESS

- **Established Legacy:** Samrat, a renowned Indian brand, boasts over 35 years of expertise in manufacturing top-notch Plywood, Laminates, and HPL Claddings.
- **Industry Leadership:** Since its inception in 1988, Samrat has evolved into a leading player in the Plywood and Laminate sector in India, supported by three state-of-the-art factories in North India.
- **Product Excellence:** Samrat's commitment to delivering the highest quality products is reflected in prestigious certifications such as CE, CARB, FSC, FR: BS1D0, E0, E05, GRIHA, GREEN PRO, ISI, ISO, EN 636, Anti-Viral, and Antibacterial.
- **Values-Driven Approach:** The company's work ethic revolves around its Values, Vision, and Mission, ensuring customer satisfaction at the highest level in terms of communication, service, and quality.
- **Global Presence:** With a strong footprint in 21 states across India and a global reach spanning 25 countries, Samrat Plywood has earned a reputation for excellence and reliability in the industry.

# SAMRAT HPL PRODUCTS



- EXTERIOR COMPACT HPL
- INTERIOR COMPACT HPL
- TABLE TOP COMPACT HPL
- PERFORATED COMPACT HPL
- LAB GRADE COMPACT HPL
- ANTI BACTRICAL COMPACT HPL
- CLEAN ROOM COMPACT HPL
- FR GRADE COMPACT HPL
- ANTI VIRAL COMPACT HPL

## THICKNESS :

- 3 mm
- 4 mm
- 6 mm
- 8 mm
- 10 mm
- 12 mm
- Upto 20 mm

## SIZES OFFERED :

- 1300 mm x 3050 mm
- 1220 mm x 3050 mm
- 1300 mm x 2800 mm
- 1220 mm x 2440 mm
- 900 mm x 2150 mm

# WHAT IS HPL?



## OVERVIEW

- HPL, meeting EN 438 standards, offers outstanding characteristics like durability, cleanability, and wear resistance.
- Provides a wide range of technical and design possibilities.
- Easy to process and maintain, making it suitable for various applications.

## MANUFACTURING AND COMPOSITION

- A cellulosic fibrous-based core material (normal paper) is impregnated with a thermosetting resin.
- Pressed under simultaneous heat application (temperature  $> 120^{\circ}\text{C}$ ) and high specific pressure ( $\geq 50\text{MPa}$ ).
- Results in a homogenous, non-porous material with a density  $\geq 1.35\text{g/cm}$ .
- Decorative surfaces feature material resins known for hardness, and core layers consist of cured Phenolic resin.
- Exterior-grade HPL may include an additional outer layer or coating for enhanced weather and light protection.

## DECORATIVE SCOPE

- Available in a wide range of colours, patterns, and abstract designs.
- Different textures and gloss levels enhance aesthetic possibilities.
- Excellent reproduction of natural materials, including textiles, fabrics, exotic wood veneers, and stone.
- Customized designs are achievable through various printing technologies (digital, screen, offset).
- Alternative finishes such as metal, real wood veneer, and pearlescent effects broaden the designer's palette.

## WHAT MAKES SAMRAT HPL SPECIAL?

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Introducing the all new innovation from house of Samrat, Special fade resistance range of Exterior Cladding to withstand the adverse action of atmospheric Ultra Violet Rays and exterioratmospheric effectswith minimumfoding of colours.

Those clodding are strong, self supporting and durable, promising incredible volve and trendy designes, paired with greater durability which allows your outdoors to withstand the weather and withering effects.

Versatile, durable and practical, Samrat Exterior Cladding are ideal for facades, balconies, outdoor furniture and other exterior applications, Samrat's high quality Exterior Cladding are available in large format panels for cladding balconies and building focades.

Enveloped with Samrat's perfection, your building will castan unforgettable impression evertime.

## ENVIRONMENTAL AND HEALTH ADVANTAGES OF SAMRAT HPL

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- Samrat HPL are cured and **chemically inert**.
- Samrat HPL **formaldehyde emission levels** are well below the limit for wood-based materials.
- Samrat HPL is **approved** for **contact with foodstuffs**, with **no migration** affecting food.
- Samrat HPL Surfaces are **resistant to common household solvents** and chemicals, making them ideal for applications where cleanliness and hygiene are crucial.
- The non-porous Samrat HPL surface and edges are **easy to disinfect** with hot water, steam, and common disinfectants used in hospitals and commercial facilities.
- Samrat HPL is considered an article, not a chemical substance, **exempting it from REACH regulations**. However, an information exchange with raw material suppliers on REACH-relevant substance properties is maintained.

# WHY USE SAMRAT HPL?



## **Special Fade Resistance:**

Introducing Samrat's latest innovation the **Special Fade Resistance range of Exterior Cladding**, designed to withstand the adverse effects of atmospheric ultraviolet rays and minimize colour fading.

## **Robust and Durable:**

Samrat Exterior Cladding is known for its **strength, self-supporting structure, and remarkable durability**, ensuring a long-lasting and appealing outdoor aesthetic.

## **Value and Trendy Designs:**

Experience the perfect blend of value and **contemporary design**, promising **incredible aesthetics** while maintaining longevity against weather and external elements.

## **Versatile Applications:**

Ideal for a range of **exterior applications, including facades, balconies, outdoor furniture**, and more. These cladding solutions are adaptable to various outdoor spaces.

## **Large Format Panels:**

Samrat's high-quality Exterior Cladding is available in **large format panels**, specifically crafted for cladding balconies and building facades, providing a seamless and visually appealing finish.

## **Unforgettable Impression:**

Enveloped with **Samrat's commitment to perfection**, these cladding solutions ensure that your building leaves an **unforgettable impression every time**, combining innovation with enduring style.

## **10-Year Peace of Mind Warranty:**

Rest easy with our Exterior Cladding backed by a **10-year warranty**, safeguarding **against fading and delamination** for unparalleled durability and quality assurance.

## **Luxurious Decor Papers:**

Immerse yourself in opulence with our **premium Decor Papers** sourced from renowned **German companies** Schattdecor, Chiyodo, Lamigraf, Interprint, Munksjo, and Technocell. This forms the exquisite **All Blue scale 6 Plus Decor Paper collection**.

## **Diverse Design Collection:**

Explore one of the most extensive UV-grade Exterior Cladding collections, showcasing over **75 designs** from **prestigious companies like Schattdecor, Chiyoda, Lamigraf, Interprint, Munksjo, Technocell, and more**.

## **Industry Pioneers:**

With over a **12 years of experience**, we proudly stand among the **first companies to manufacture Exterior Claddings** in India, contributing to the industry's growth and fostering innovation.

## **Proven Excellence:**

Trust our expertise with a proven track record—over **2 million square meters installed globally in the past 12 years**. This reflects our unwavering commitment to excellence and customer satisfaction.

## **Extensive Network:**

Benefit from our **widespread Pan India network of dealers, covering 21 states and 300 cities/towns**. Experience accessibility and support wherever you are in your architectural endeavours.

## **Global Trust:**

Extend your trust globally, as our **presence spans over 25 countries**, exemplifying international acceptance and recognition of our **high-quality Exterior Cladding**.

## **Top-Notch Materials:**

Crafted with precision, all our panels utilize **Virgin Kraft** primarily **imported from Sweden and the USA**, ensuring unmatched quality, strength, and durability.

## **Architect's Choice:**

**Preferred by senior architects** across India for **prestigious projects**, our panels adorn nationalized banks, hospitals, institutions, government projects, hotels, and more. A testament to the **superior quality** and design of our products.

## **Expert Consultation:**

Access **24/7 in-house consultancy** from an industry-renowned professional, **offering expert guidance** on Exterior Claddings. Make informed decisions for your projects with confidence.

# CHARACTERISTIC ADVANTAGES OF SAMRAT HPL

- **Aesthetic Appeal** - Uniform decors and colours which come in different shapes and sizes give you freedom to architectural view.
- **Resistant to UV Rays** - Samrat Exterior Cladding is highly resistant to UV rays found in Sun Light and therefore, panels do not lose its original colour and hue in direct sun light.
- **Weather Resistance** - Excellent dimensional stability under different extreme weather conditions.
- **Easy to Clean** - Panels do not attract dust and therefore easily using cleanable with damp cloth.
- **Fire Retardant** - HPL are difficult to ignite and have properties that retard spreading of flames. In a fire situation they do not soften or release burning droplets.

Through the right selection of quality and thickness (standard or fire retardant grade HPL can meet the highest fire performance achievable with organic materials.

- **Cost Effective** - No maintenance cost, replacement of individual panel is possible.

Acts as a barrier of wind, rain and sunlight.

- **Mechanical and Physical Properties**
  - Resistance to scratching
  - Resistance to abrasion
  - Impact strength
  - Resistance to cigarette burns
  - Resistance to heat
  - Light fastness
  - Antistatic up to electrical dissipation.

- **Chemical Properties**
  - Resistance to staining
  - Resistance to chemical attack
  - Resistance to organic solvents
  - Resistance to steam
  - Resistance to boiling water.

- **Physiological Characteristics of HPL Surfaces** - HPL are hygienic, harmless, non toxic and can be safely used in contact with food.

- **Diffusion Barrier** - When bonded to a substrate HPL acts as a barrier preventing the emission of potential volatile substances.

- **Durability** - Compared to other decorative materials like paints, thermoplastic foils, veneers etc, HPL offers a significantly longer life of more than 15 Years, can be expected without loss of appearance and performance.



# FEATURES



**12 YEAR  
WARRANTY\***



**CHEMICAL  
RESISTANT**



**ANTI-DUST**



**LOW VOC  
EMISSION**



**TERMITE  
RESISTANT**



**EXCELLENT ANTI  
GRAFFITI PROPERTIES**



**CORROSION  
RESISTANT**



**MATCHING  
RIVETS**



**ENVIRONMENT  
FRIENDLY**



**FIRE  
RETARDANT**



**ENERGY  
EFFICIENT**



**MOISTURE  
RESSISTANT**



**RESISTANCE  
TO ACID RAINS**



**ANTI - BACTERIAL  
AND ANTI - FUNGAL**



**CAN WITHSTAND EXTREME TEMPERATURE  
CONDITION FROM - 60C TO +80C**

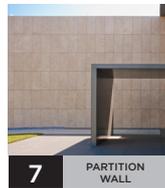
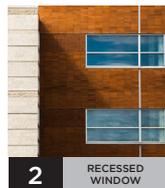
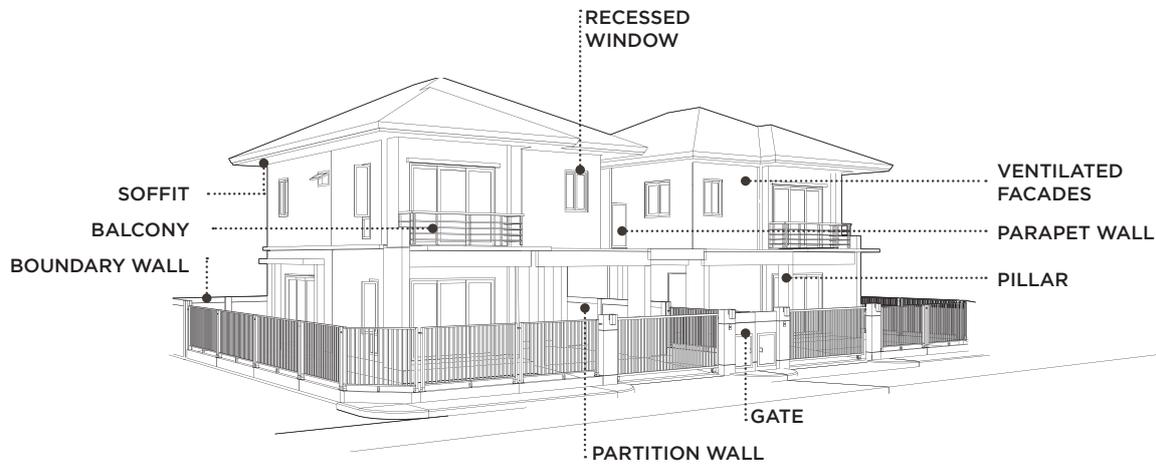


**ACOUSTIC  
RESISTANCE**



**SUPERIOR LIGHT FASTNESS  
PERFORMANCE (UV RESISTANCE)**

# APPLICATION FIELDS FOR HPL



## Market Segments

- Private and residential housing
- Hospital and laboratories
- Public buildings
- Railway station and airport terminal/infrastructure
- Transportation
- Hotels
- Education
- Retail and commercial buildings
- Sports and recreation centres
- Industrial buildings

## Application areas interior

- Walls and partitions
- Ceilings
- Doors
- Flooring
- Stairs
- Furniture/chairs
- Trims
- Window slims
- Tables
- Work tops, counter tops
- Vanity units
- Cubicles
- Display/shop systems

## Exterior

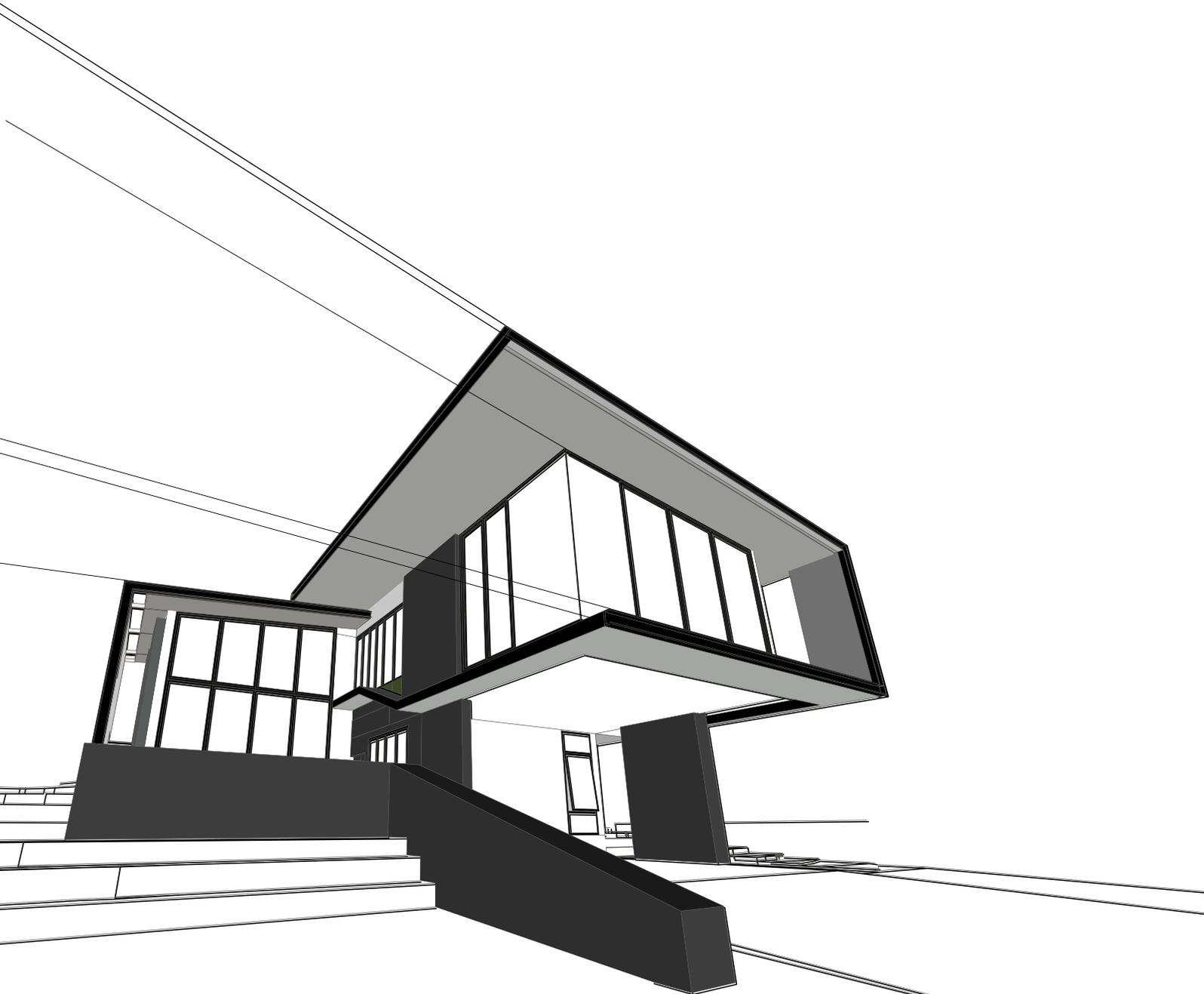
- Balconies
- Facades
- Furniture and signs
- Urban elements
- Orientation systems

# PRODUCT ADVANTAGES OF HPL

	HARDWOOD	ACP	GLASS	STONE	TILE CLADS	SAMRAT HPL
IMPACT & SCRATCH RESISTANCE	✓	✗	✓	✓	✓	✓
WATER & MOISTURE RESISTANCE	✗	✗	✗	✗	✗	✓
UV RESISTANCE	✗	✗	✗	✗	✗	✓
LIGHTWEIGHT COMPARED TO STONE & GLASS	✗	✗	✗	✗	✗	✓
BACTERIA & MOLD RESISTANCE	✗	✗	✗	✗	✗	✓
WEATHER & TEMPERATURE STABILITY	✓	✗	✗	✗	✗	✓
NO EFFLORESCENCE ISSUES	✗	✗	✗	✗	✗	✓
BETTER ACOUSTIC PERFORMANCE	✗	✗	✗	✗	✗	✓
NO FADING OR DISCOLORATION	✗	✗	✗	✗	✗	✓
TERMITE & PEST RESISTANT	✗	✗	✗	✗	✗	✓
ECO-FRIENDLY & SUSTAINABLE	✗	✓	✗	✗	✗	✓
EASY RETROFITTING & UPGRADES	✗	✗	✗	✗	✗	✓



# QUALITY ASSURANCE



70 CHANNEL PARTNERS  
COVERING 25 COUNTRIES  
GLOBALLY

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OVER 2.5 MILLION  
SQUARE METERS  
INSTALLED GLOBALLY  
IN THE PAST 12 YEARS

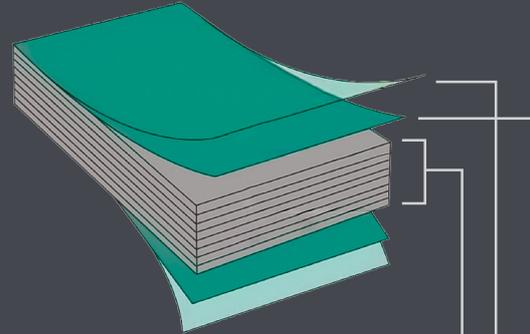


# PRODUCT CONSTRUCT

## INTERNAL STRUCTURAL DETAILS

Samrat HPL are self-supporting high pressure laminates (HPL) with a decorative surface that is suitable for exteriors. It is fade-resistant, weather-proof, and compliant to the standards of EDF (EN 438-6 Exterior Grade Severe Use Flame Retardant) which is the best in this classification.

The polymeric resins used are made with Non-Halogenated Fire Retardant chemicals which make the HPL fire-retardant.



### PRODUCT CONSTRUCTION

Special Polymeric Film for Surface Protection Both Sides

Special Exterior Décor Paper Impregnated with Thermosetting Resin on Both Sides

Kraft Core Treated with Special Chemicals and Halogen-Free HR Additives in Thermosetting Resin

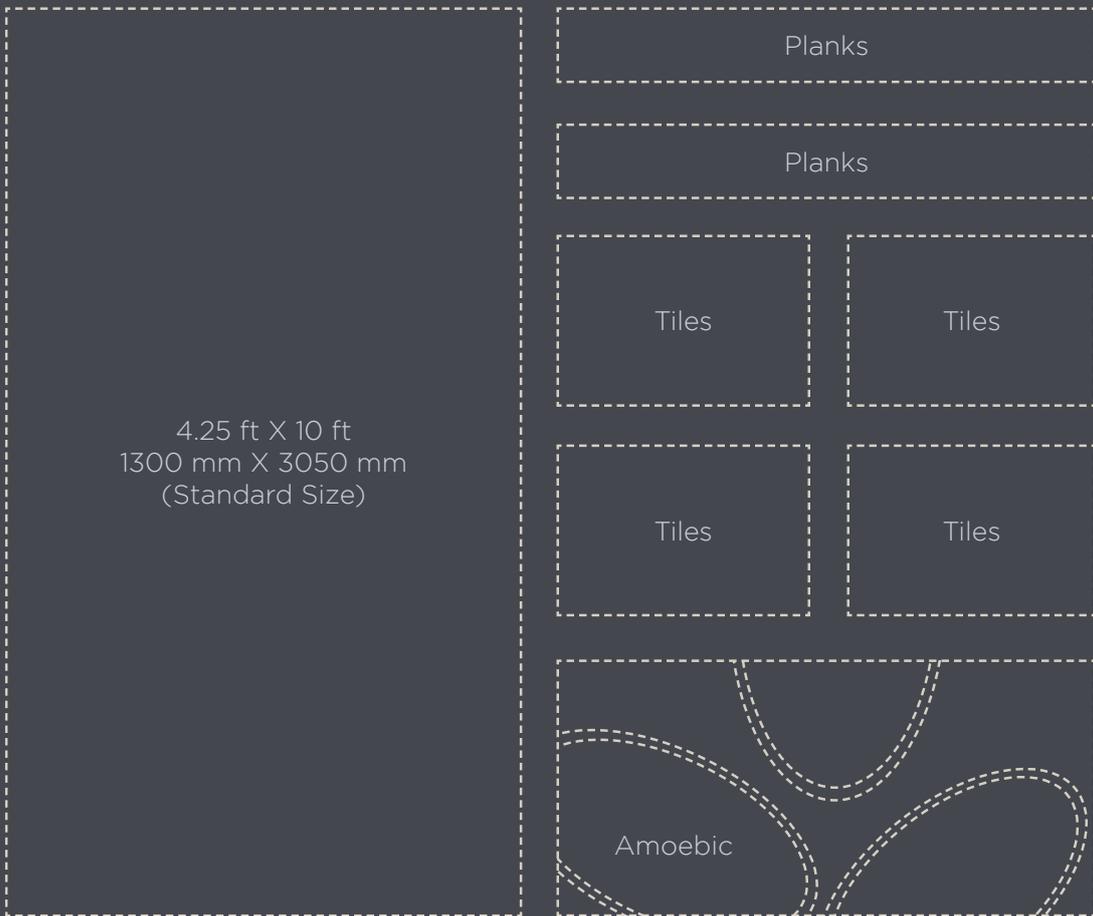
## THE PRODUCT IS MADE UP OF:

1. Layers of kraft paper impregnated with halogen free FR-Grade phenolic resins that make the product fire-retardant.
2. Both the sides have a special exterior-grade decorative paper surface made using extreme light stable pigments, special chemicals, and inks that are then impregnated with melamine resins. The decor paper is rated 3-5 on Grey Scale, hence making it fit to use for exteriors.
3. Best quality polymeric surface protection film layer on the front and rear surface of the board. This film layer guards the surface of Samrat Clads when exposed to the combined action of direct sunlight, rains/acid rains, hail, wind, frost, exhaust fumes, graffiti, and corrosion/salt deposition.

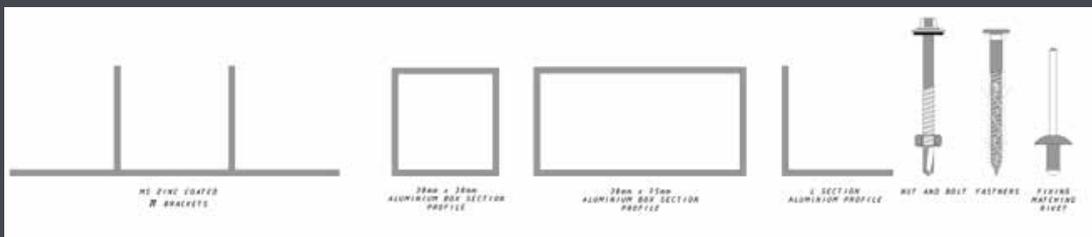
# PRODUCT SPECIFICATIONS

THICKNESS	WEIGHT (KG)		
	3050mm X 1300mm	3050mm X 1220mm	2440mm X 1220mm
6 mm	34.65	32.5	26
8 mm	46.2	43.35	34.6
10 mm	57.75	54.15	43.25
12 mm	69.3	65	52

## INSTALLATION PATTERNS



## FIXING PROFILES OF CLADS



# WOODEN COLLECTIONS



332



330



331



3741



94668



2036



328



329



7043



7041



7042



7032



7044



953



416



2204



2033



453



454



2221



484



415



433



709



2037



2038

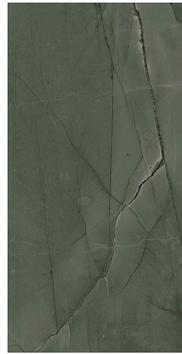
# MARBLE COLLECTIONS



324



2029



420



2039



2040



2031



2034



2032



2028



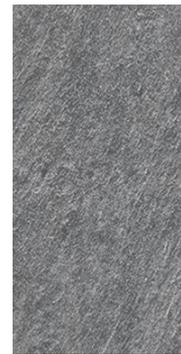
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7030



7037



7031



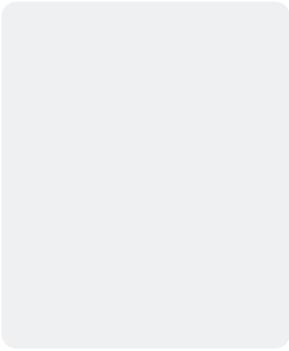
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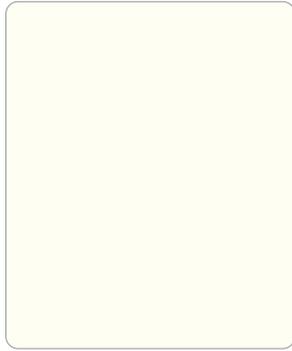
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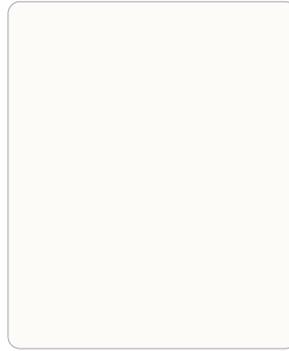
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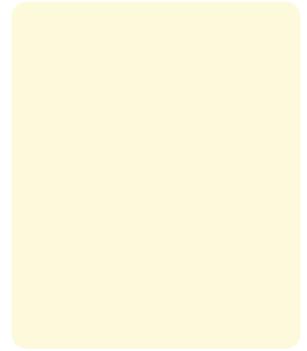
**101**  
DESIGNER WHITE



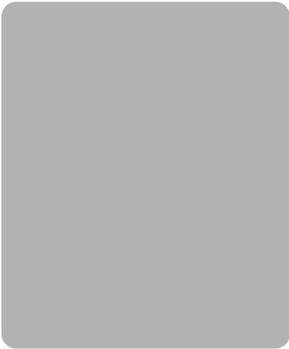
**102**  
FROSTY WHITE



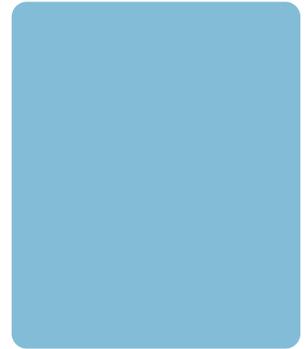
**9010**  
SNOW WHITE



**356**  
MYSORE IVORY



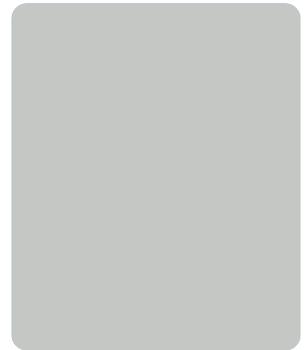
**362**  
PEWTER GREY



**380**  
SKY BLUE



**358**  
BIEGE



**367**  
CALIFORNIA GREY



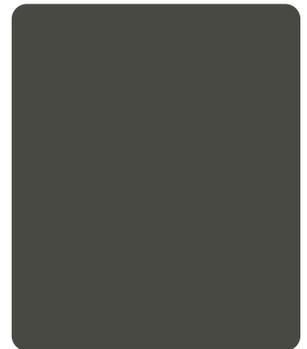
**364**  
BEACH GREY



**365**  
PRINCESS GREY



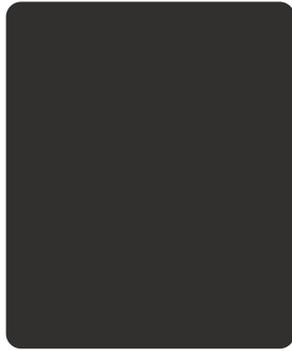
**379**  
WARM GREY



**387**  
IRON GREY



117  
DARK GREY



361  
DAWN GREY



375  
BEAVER



374  
HICKORY



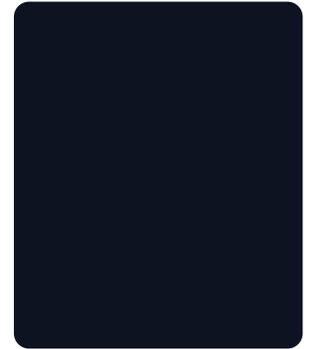
366  
CHOCOLATE



3222  
JET BLACK



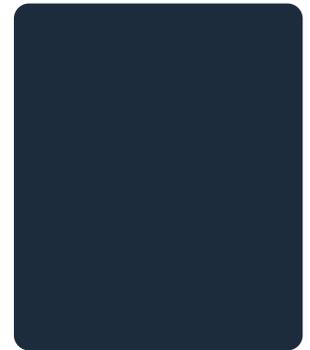
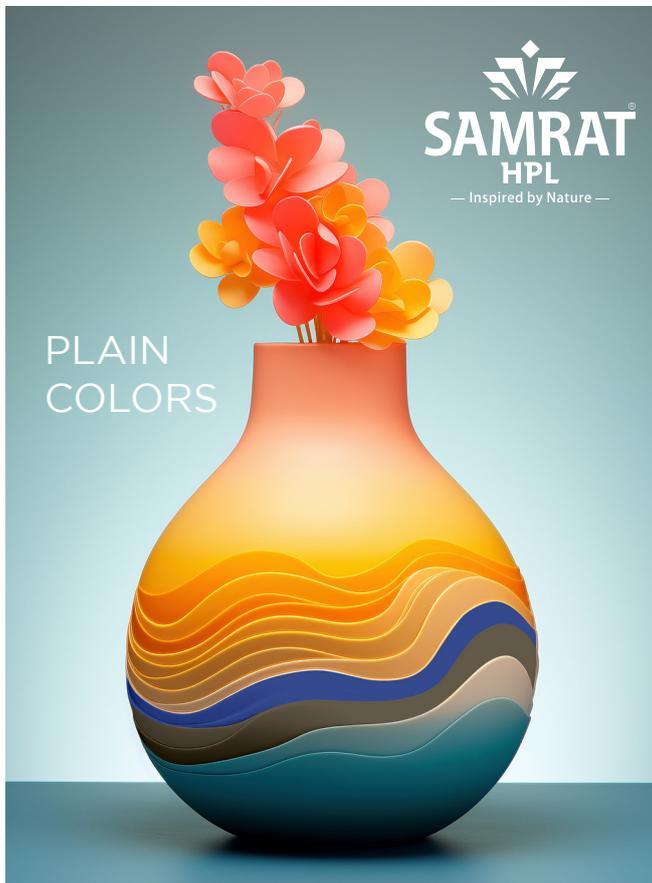
1121  
DARK GREEN



371  
NAVY BLUE



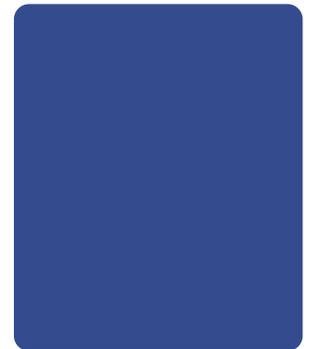
384  
CELESTIAL BLUE



553  
GRAPHITE BLUE



563  
SEASIDE TURQUOISE



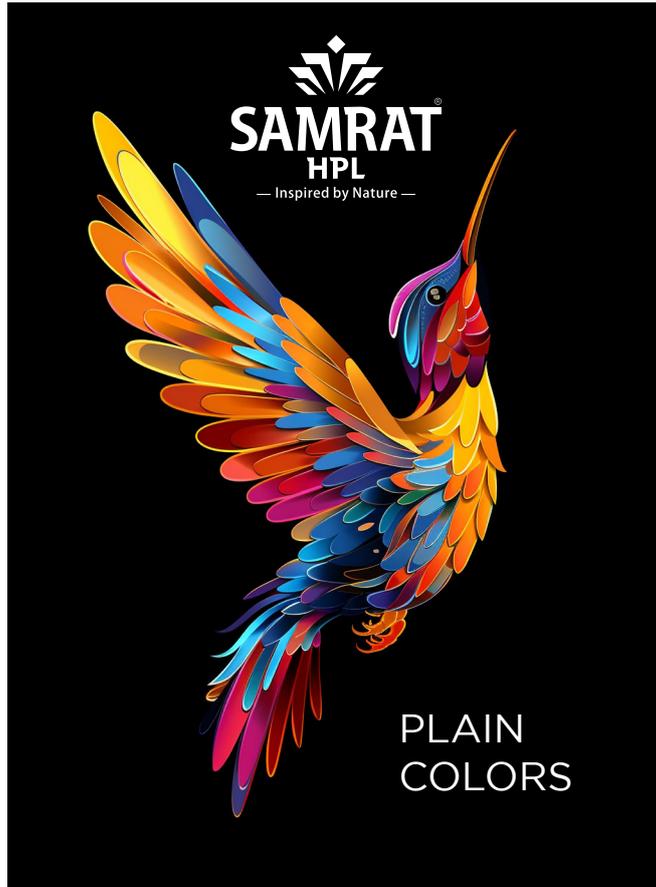
522  
BLUE



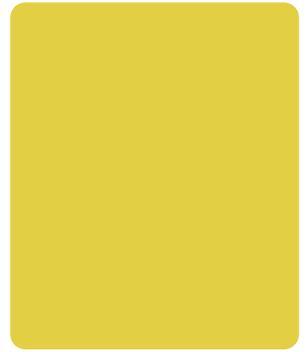
**372**  
LAPIS BLUE



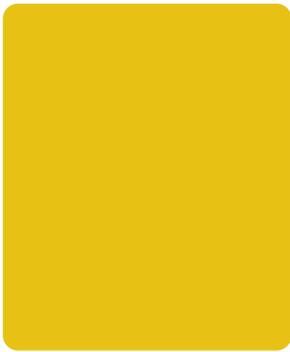
**554**  
SAHARA YELLOW



**527**  
ROBIN BLUE



**545**  
MARIGOLD



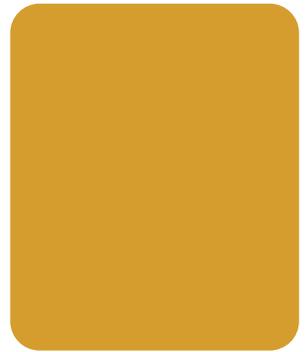
**555**  
SUNNY YELLOW



**568**  
TOFFEE YELLOW



**147**  
YELLOW



**546**  
MANGO



**9012**  
GREEN FROST



**564**  
JUNGLE GREEN



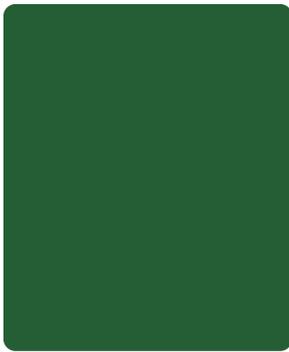
**512**  
OLIVE



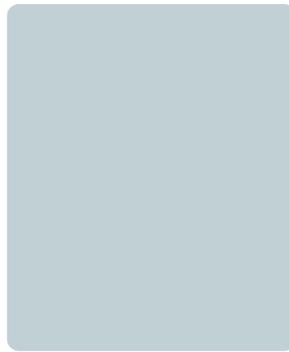
**373**  
PARROT GREEN



**385**  
KIWI GREEN



**516**  
GREEN



**9011**  
ICY CALM



**370**  
GLACIER BLUE



**561**  
PLEASANT TURQUOISE



**517**  
AQUA GREEN



**518**  
ENGLISH LVY



**567**  
DEEP TURQUOISE



**541**  
BABY PINK



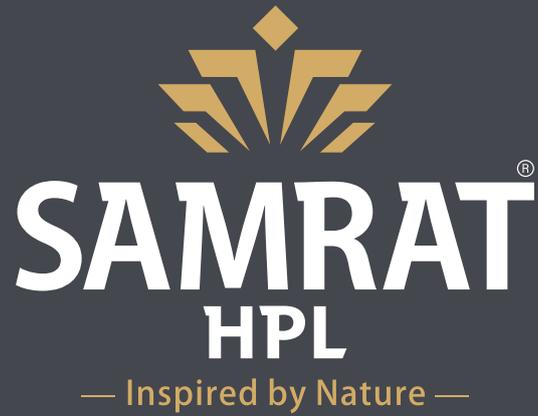
**539**  
PINK

# TECHNICAL DATA SHEET

Sr. No	Test	Test Method	Requirement	Result	
1	Resistance To Scratching	EN 438-2-25	Min. 3	4	
2	Resistance To Impression In Boiling Water	EN 438-2-12	Gloss Finish	Min. 3	4
			Other Finish	Min. 4	5
3	Resistance To Impact By Small Diameter Ball	En 438-2-20	Min. 25	30	
4	Resistance To Dry Heat At 160° C	EN 438-2-16	Gloss Finish	Min. 3	4
			Other Finish	Min. 4	5
5	Resistance To Wet Heat At 100° C	EN 438-2-18	Gloss Finish	Min. 3	4
			Other Finish	Min. 4	5
6	Resistance To Surface Wear	EN 438-2-10	≥350	420	
7	Stain Resistance	EN 438-2-26	Group 1 & 2	Min. 5	5
			Group 3	Min. 4	5
8	Dimensional Stability	EN-438-2-17	Machine Direction	Min. 0.45	0.059
			Cross Direction	Min. 0.90	0.097
9	Surface Finish	EN 438-3-6.2.3		No Significant Colour & gloss change observed	
10	Surface Quality	EN 438-3-6.2.5.2		No sign of dirt, Spots, scratches or other defects observed	
11	Edge Quality	EN 438-3-6.2.5.3		No sign of moisture marks and corner damage observed on four edges of the laminate	
12	Visual Inspection	EN 438-3-6.2.5		Satisfactory	
13	Resistance To Water Vapour	EN 438-2-16	Gloss Finish	Min. 3	4
			Other Finish	Min. 5	5
14	Flatness	EN 438-2-9	≤60	1.02	
15	Density	EN ISO 1183-1	≥1.35	1.44	
16	Straightness	EN 438-2-7	≤1.5	0.082	
17	Dimension	Length	EN 438-2-6	≈10/0	1001
		Width		≈10/0	998
		Thickness	EN 438-2-5	0.5 to 2.0± (0.10 to 0.15)	0.60
18	Resistance To Impact By Large Diameter Ball	EN 438-2-21	Min. 1000	1800	
19	Light Fastness	EN 438-2-29	Min. 5	5	

# TECHNICAL DATA SHEET

Sr. No	Test		Test Method	Requirement	Result
20	<b>Staining Agent</b>		<b>Contact Time</b>	<b>Observation</b>	<b>Result</b>
	Toothpaste, Handcream, Urine, Alcoholic Beverages, Natural Fruits And Vegetable Juices, Lemonade And Fruit Drinks, Meat And Sausages, Animals And Vegetables Fats And Oils, Water, Yeast Suspension In Water, Salt (Nacii) Solution		16 Hours	No Visible Changes	Rating 5
	Cleaning Solution	Dedocyl Benzene Sulfonate (23%)			
		Alkyl Aryl Poly Glycol Ether (10%)			
		Water (67%)			
	Commercial Disinfectants				
Stain Or Paint Removers Based On Organic Solvents					
Citric Acid (10% Solution)					
21	Formaldehyde Contant		Astm D6191		<1
22	<b>Anti - Viral</b>	<b>Exptl. Condition Control (A) (Pfu/ MI)</b>	<b>Neutralizer Toxicity Control (B) (Pfu/ MI)</b>	<b>Dilution-Neutralization Control (C) (Pfu/ MI)</b>	<b>Result</b>
	Ms2 Bacteriophage	50	52	54	Satisfactory
23	Anti Viral	Quantitative Assessment Of Antiviral Activity -Iso 21702: 2019			Result
		Untreated: Average No. Of Plaques Recovered At 0 Hours (U0): 1.00x 10 <sup>5</sup> Pfu/Sq. Cm.		Log = 5.00	Satisfactory
		Untreated: Average No. Of Plaques Recovered At 24 Hours (Ut): 1.24 X 10 <sup>5</sup> Pfu/Sq. Cm.		Log = 5.09	
		<b>Average No. Of Plaques Recovered From Treated (At)</b>	<b>Log Of Plaques Recovered From Treated (At)</b>	<b>Antiviral Activity(R) (Log Ut- At)</b>	<b>Virus Reduction Percentage</b>
		< 10	<1	>4.09	>99.99
24	Anti-Bacterial	<b>Quantitative Assessment Of Activity: Jis Z 2801: 2010; Amendment 1: 2012</b>	<b>Avg. Count</b>	<b>Log</b>	<b>Result</b>
		Untreated Control: Inoculum On Untreated Sample At 0 Hours (U0) CfU/Cm <sup>2</sup>	18750	4.27	Satisfactory
		Untreated Control: Inoculum On Untreated Sample After 24 Hours (Ut) CfU/Cm <sup>2</sup>	98125	4.99	
		<b>Sample Identification</b>	<b>No. Bacteria On Treated Sample CfU/Cm<sup>2</sup> (At)</b>	<b>Log Of Bacteria On Treated Sample (At)</b>	<b>Antimicrobial Activity R = (Ut - U0) - (At - U0)</b>
		High Pressure Laminate	<6.25	<0.80	>4.21 (>99.99%)
25	Anti-Bacterial	<b>Quantitative Assessment Of Activity: Jis Z 2801: 2010; Amendment 1: 2012</b>	<b>Av. Count</b>	<b>Log</b>	<b>Result</b>
		Untreated Control: Inoculum On Untreated Sample At 0 Hours (U0) CfU/Cm <sup>2</sup>	25000	4.40	Satisfactory
		Untreated Control: Inoculum On Untreated Sample After 24 Hours (Ut) CfU/Cm <sup>2</sup>	241667	5.38	
		<b>Sample Identification</b>	<b>No. Bacteria On Treated Sample CfU/Cm<sup>2</sup> (At)</b>	<b>Log Of Bacteria On Treated Sample (At)</b>	<b>Antimicrobial Activity R = (Ut - U0) - (At - U0)</b>
		High Pressure Laminate	<6.25	<0.80	>4.61 (>99.99%)
26	<b>Fire Resistant</b>			<b>Requirement</b>	<b>Result</b>
	Smoke Development En-13501-L			Very Limited Smoke Development Of Class S1	Yes
	Burning Droplets En-13501-L			No Burning Droplets Or Particle Of Class D0	Yes



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