



SAMRAT COMPACT HPL

PRODUCTS :

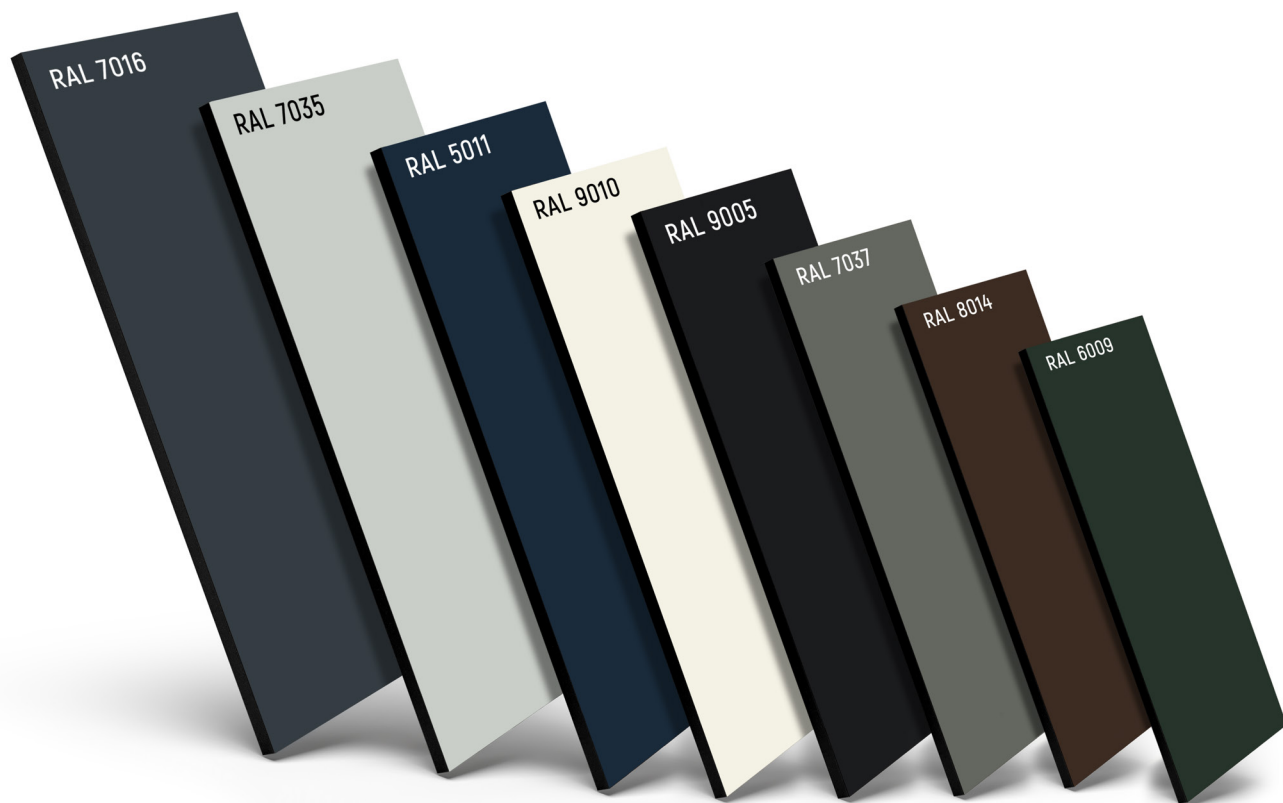
EXTERIOR GRADE SAMRAT HPL
INTERIOR GRADE SAMRAT HPL



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SAMRAT HPL PRODUCTS



EXTERIOR SAMRAT HPL

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
- } Other Size on Request

INTERIOR SAMRAT HPL

THICKNESS AVAILABLE IN STOCK

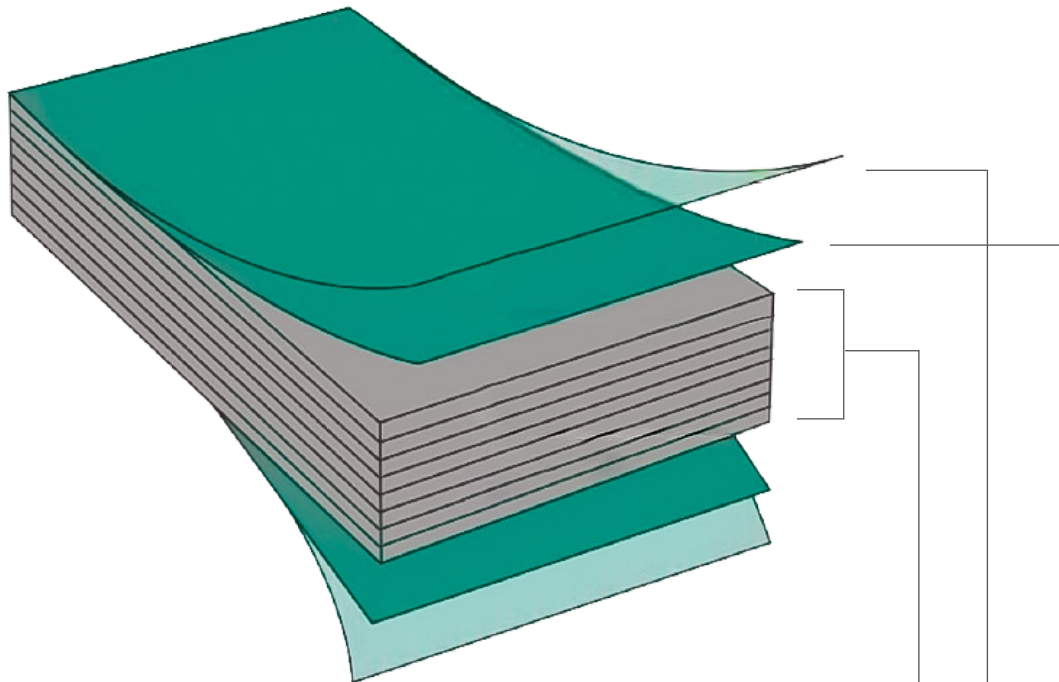
- 6 MM • 8 MM
- Other Thickness on Request

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

COMPOSITION OF EXTERIOR GRADE COMPACT HPL

1. Kraft Paper Core - Multiple layers of phenolic resin-impregnated kraft paper, providing high strength, impact resistance, and dimensional stability.
2. Decorative Surface Layer - A UV-resistant melamine-treated decorative paper, ensuring long-lasting aesthetics, resistance to fading, and design versatility.
3. Protective PMMA Overlay - A PMMA (Polymethyl Methacrylate) layer enhances UV stability, scratch resistance, and weather protection, preventing color fading and ensuring long-term durability.
4. High-Pressure Curing - All layers are fused under high pressure (≥ 1000 psi) and temperature ($\geq 150^{\circ}\text{C}$), creating a dense, non-porous, and durable panel for exterior use.
5. Fire & Heat Resistance - Specially formulated resins provide high thermal stability and fire-retardant properties, making the panels safer for exterior applications.
6. Moisture & Fungus Resistance - The non-porous, compact structure prevents water absorption, ensuring resistance to humidity, mold, and fungal growth, making it ideal for outdoor use.
7. Low Maintenance & Longevity - Resistant to stains, chemicals, and pollutants, these panels require minimal upkeep while maintaining their performance and appearance for years.
8. Layers of kraft paper impregnated with halogen free FR-Grade phenolic resins that make the product fire-retardant.
9. 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 a Grey Scale, hence making it fit to use for exteriors.
10. 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.



ENVIRONMENTAL AND HEALTH ADVANTAGES OF SAMRAT HPL

- 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.

CHARACTERISTICS ADVANTAGES OF SAMRAT HPL



Aesthetic Appeal

Uniform decors and colors enhance architectural design. Available in various shapes and sizes for creative freedom.



UV Resistance (3000 Hours Test Report)

Highly resistant to UV rays from sunlight. Retains original color and hue, preventing fading over time.



Weather Resistance

Excellent dimensional stability in extreme weather conditions. Resistant to moisture, temperature fluctuations, and humidity.



Easy to Clean

Dust-resistant surface reduces maintenance effort. Easily cleaned with a damp cloth, requiring no special treatments.



Fire Retardant (EN 13501-1)

Difficult to ignite and prevents the spread of flames. Does not soften or release burning droplets in fire situations. Available in standard and fire-retardant grades for enhanced safety.



Cost Effective

Zero maintenance costs, making it a long-term investment. Individual panels can be replaced without affecting the entire façade.



ETB Approval in progress 04/25



Mechanical & Physical Properties

Scratch Resistant (EN - 438 - 2 - 25)
Abrasion Resistant (EN - 438 - 2 - 25)
High Impact Strength (EN - 438 - 3 - 2016)
Resistant to Cigarette Burns (EN 438 - 3 - 2016)
Heat Resistant (EN 438 - 3 - 2016)
Lightfast and Fade Resistant



Chemical Properties

Stain-resistant (EN 438 - 2 - 2016)
Resistant to chemical exposure (EN 438 - 2 - 2016)
Withstands organic solvents (EN 438 - 2 - 2016)
Steam and boiling water-resistant (EN 438 - 3 - 2016)



Hygiene & Safety

Non-toxic and food-safe – HPL surfaces are hygienic, harmless, and suitable for food contact. Diffusion Barrier – When bonded to a substrate, HPL prevents the emission of volatile substances, ensuring a safe indoor environment.



Durability

Compared to other decorative materials like paints, thermoplastic foils, and veneers, HPL offers an exceptionally long lifespan of over 15 years with no loss of appearance or performance.



Weather Barrier

Acts as a protective shield against wind, rain, and sunlight. Enhances the lifespan and performance of buildings, That is ETB Richtlinien

ACCREDITATION



**12 YEAR
WARRANTY***



**CHEMICAL
RESISTANCE**



ANTI-DUST



**LOW VOC
EMISSION (ASTMD 6191)**



**TERMITE
RESISTANCE**



**EXCELLENT ANTI
GRAFFITI PROPERTIES**



**SALT CORROSION
RESISTANCE (Test Report Available)**



**Matching
Screws**



**ENVIRONMENT
FRIENDLY**



**FIRE
RETARDANT (EN 13501 - 7)**



**ENERGY
EFFICIENT**



**MOISTURE
RESISTANCE**



**RESISTANCE
TO ACID RAINS**



**ANTI - BACTERIAL
AND ANTi - FUNGAL (Test Report Available)**

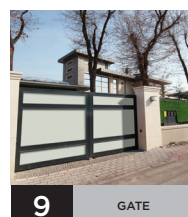
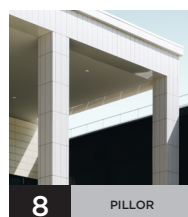
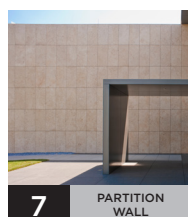
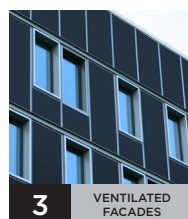
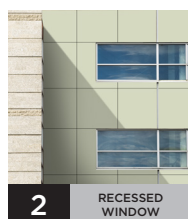
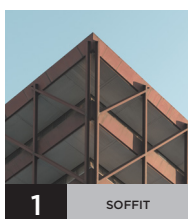
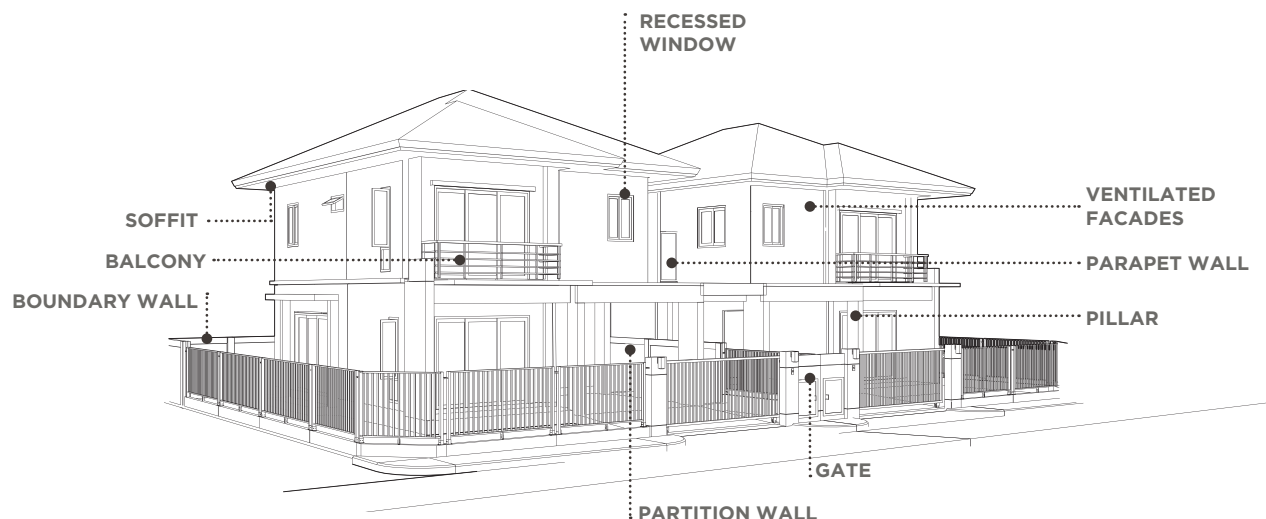


**CAN WITHSTAND EXTREME TEMPERATURE
CONDITION FROM - 25C TO +55C**



**SUPERIOR LIGHT FASTNESS
PERFORMANCE (UV RESISTANCE)
(3000 Hours Test Report Available)**

APPLICATION FIELDS FOR SAMRAT 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

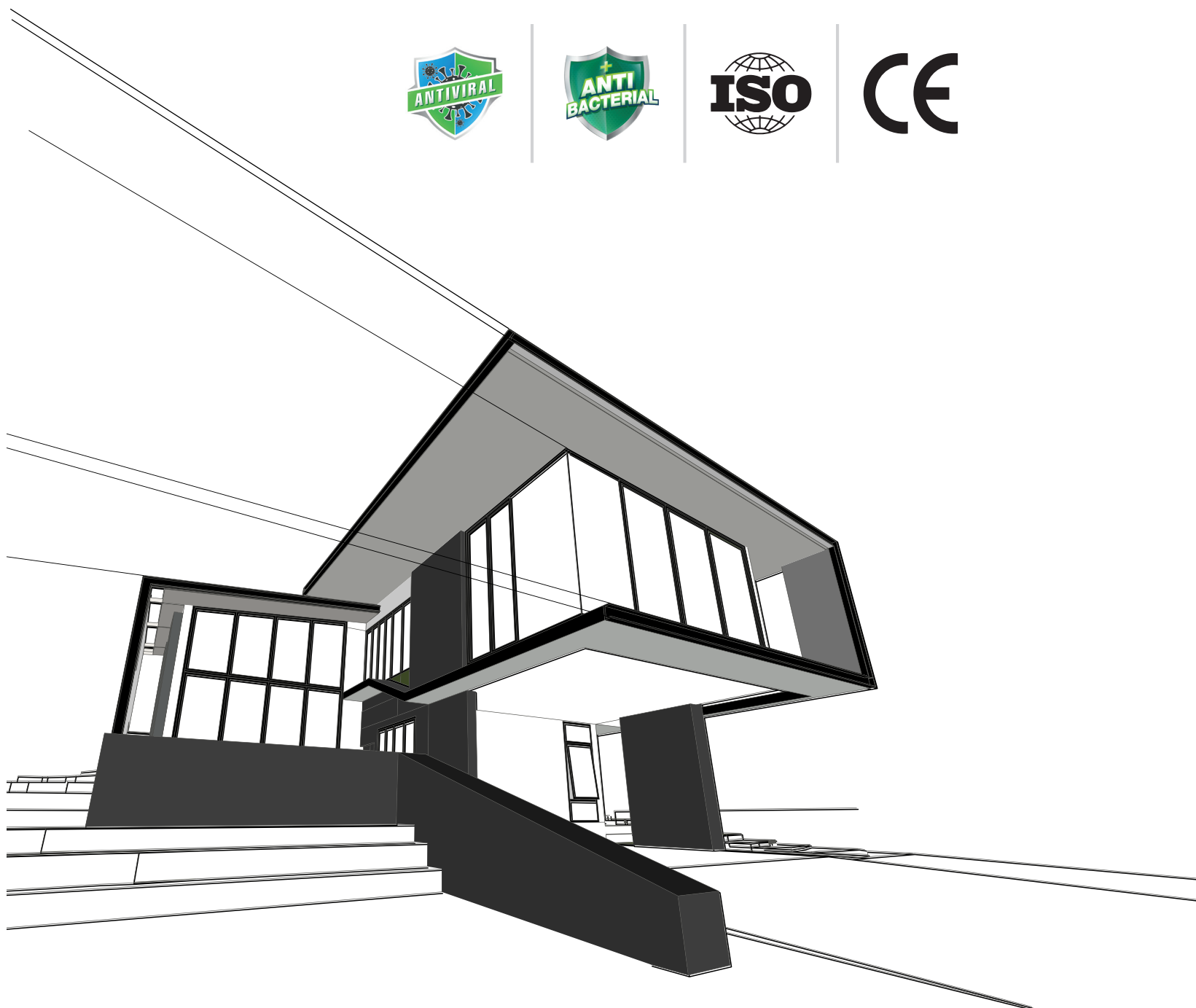
Exterior

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

PRODUCT ADVANTAGES OF SAMRAT HPL

	HARDWOOD	ACP	GLASS	STONE	TILE CLADS	TRENDOO COMPACT 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	✗	✗	✗	✗	✗	✓

ASSURANCE



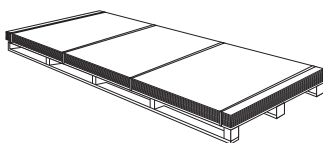
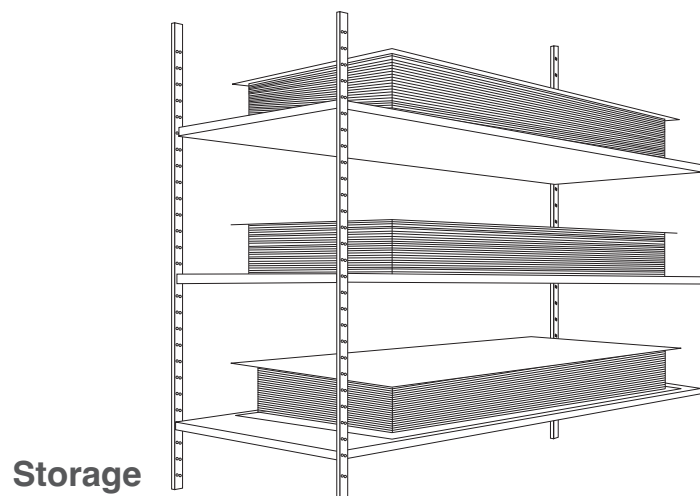
MAINTENANCE

Cleaning

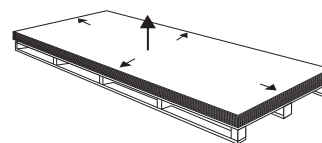
Maintaining Samrat Hpl panels is effortlessly achieved by wiping away most dirt with a dampened cloth or sponge. Stubborn stains can be addressed with a suitable household detergent. For UV-resistant panels, alcohol-based cleaners can be used, though it's advisable to test-clean a discreet area before a comprehensive cleaning. Abrasive-containing products are not recommended. Pressure washing is safe, with the jet directed bottom to top and laterally at a distance of 20-30 cm. Finish with a clean water rinse. Ensure the jet wash pressure does not exceed 100 bar, and water temperature stays below 90-100°C.

Transport and handling

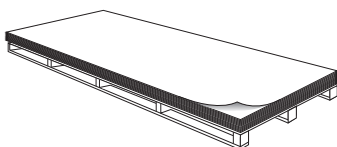
While Samrat Hpl panels exhibit exceptional durability once installed, handling during storage demands care to avoid damage to surfaces and edges. Panels are delivered with protective foil covering, and when stacking, it's advisable to remove dust and larger particles from between the boards. Stack the panels with thicker ones at the bottom and lighter ones on top, ensuring not to overload the stack. Secure the boards to prevent slipping during transit, and protect the foil from continual direct sun or heat exposure.



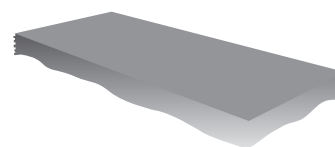
Samrat panels should be horizontally stacked on a flat and stable support surface. To preserve the surface integrity, ensure that covering plates are left on the top of the stack. Incorrect storage practices may result in permanent deformation of the boards.



During loading and unloading, lift the panels and avoid pushing or pulling them over edges.



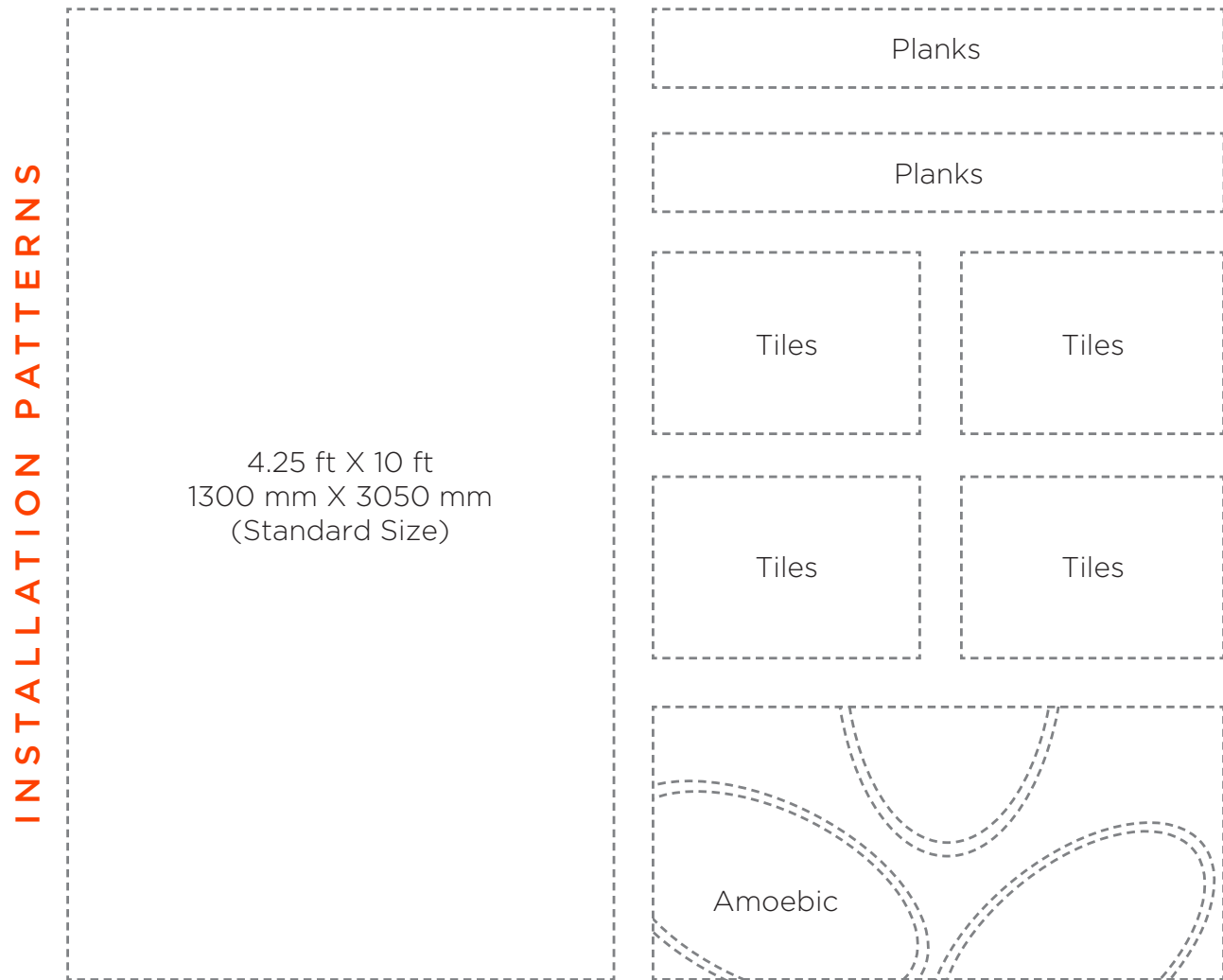
Do not stack panels with damaged protective foil, and refrain from removing the foil if the panels will be stored before mounting or cutting.



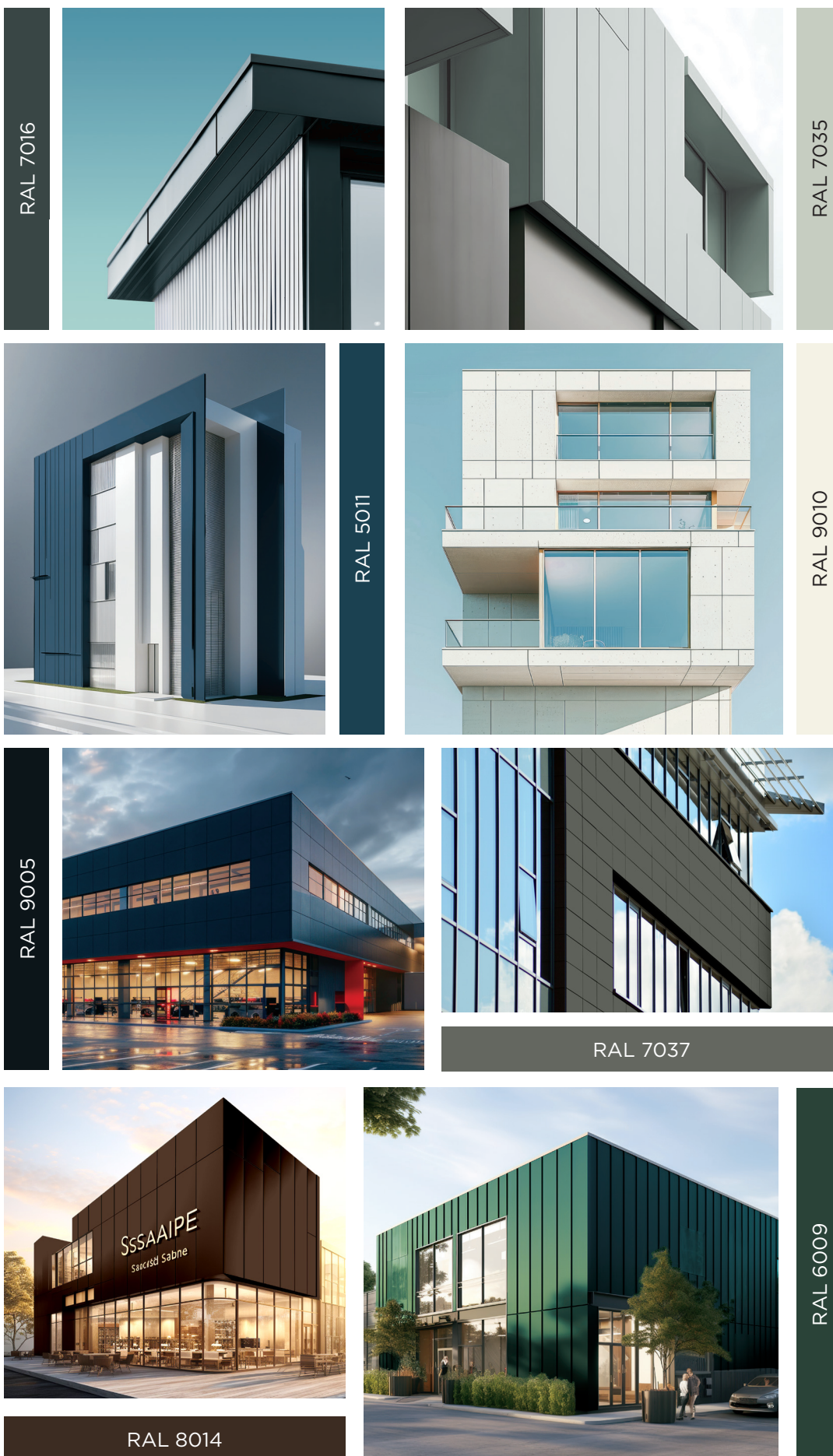
Keep the pallet securely covered to prevent dust or dirt from accumulating on or between the panels.

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



DESIGNS COLLECTIONS

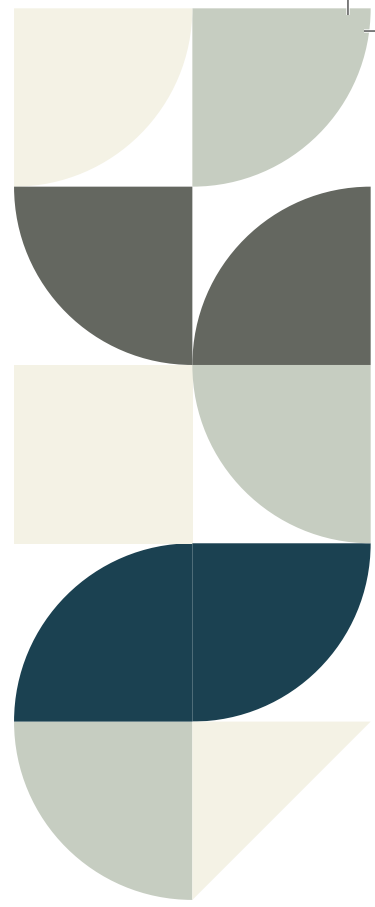


TECHNICAL DATA SHEET

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	Gloss Finish	EN 438-2-12	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	Gloss Finish	EN 438-2-16	Min. 3	4
		Other Finish		Min. 4	5
5	Resistance To Wet Heat At 100° C	Gloss Finish	EN 438-2-18	Min. 3	4
		Other Finish		Min. 4	5
6	Resistance To Surface Wear		EN 438-2-10	≥350	420
7	Stain Resistance	Group 1 & 2	EN 438-2-26	Min. 5	5
		Group 3		Min. 4	5
8	Dimensional Stability	Machine Direction	EN-438-2-17	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	Gloss Finish	EN 438-2-16	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	Staining Agent		Contact Time	Observation	Result
	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 (NaCl) 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	Anti - Viral	Exptl. Condition Control (A) (Pfu/ MI)	Neutralizer Toxicity Control (B) (Pfu/ MI)	Dilution-Neutralization Control (C) (Pfu/ MI)	Result
	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 105 Pfu/Sq. Cm.		Log = 5.00	Satisfactory
		Untreated: Average No. Of Plaques Recovered At 24 Hours (Ut): 1.24 X 105 Pfu/Sq. Cm.		Log = 5.09	
		Average No. Of Plaques Recovered From Treated (At)	Log Of Plaques Recovered From Treated (At)	Antiviral Activity(R) (Log Ut- At)	Virus Reduction Percentage
		< 10	<1	>4.09	>99.99
24	Anti-Bacterial	Quantitative Assessment Of Activity: Jis Z 2801: 2010; Amendment 1: 2012		Avg. Count	Log
		Untreated Control: Inoculum On Untreated Sample At 0 Hours (U0) CfU/Cm2		18750	4.27
		Untreated Control: Inoculum On Untreated Sample After 24 Hours (Ut) CfU/Cm2		98125	4.99
		Sample Identification	No. Bacteria On Treated Sample CfU/Cm2 (At)	Log Of Bacteria On Treated Sample (At)	Antimicrobial Activity R = (Ut - U0) - (At - U0)
		High Pressure Laminate	<6.25	<0.80	>4.21 (>99.99%)
25	Anti-Bacterial	Quantitative Assessment Of Activity: Jis Z 2801: 2010; Amendment 1: 2012		Av. Count	Log
		Untreated Control: Inoculum On Untreated Sample At 0 Hours (U0) CfU/Cm2		25000	4.40
		Untreated Control: Inoculum On Untreated Sample After 24 Hours (Ut) CfU/Cm2		241667	5.38
		Sample Identification	No. Bacteria On Treated Sample CfU/Cm2 (At)	Log Of Bacteria On Treated Sample (At)	Antimicrobial Activity R = (Ut - U0) - (At - U0)
		High Pressure Laminate	<6.25	<0.80	>4.61 (>99.99%)
26	Fire Resistant			Requirement	Result
	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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