



The
Holistic
way of living





ABOUT US

For years Asia's leading brand of laminates, Greenlam has manufactured products which promise to perform beyond comparison. From developing technology to designs with superior functionality, Greenlam has always received appreciation from the industry and customers across the globe.

Backed by ISO 9001, ISO 14001, OHSAS 18001 awards for offering advanced product line along with world-class working systems, Greenlam has also received global recognitions, namely NEMA, BS and EN-438 for meeting rigid international standards. It has also received recognition with the prestigious GREENGUARD certification for producing eco-friendly and sustainable products.

And now Greenlam introduces Safeguard Plus Anti Bacterial Laminates, for the first time in India. An exceptional laminate solution that retards the growth of microbes with utmost efficiency. This makes your living space free from any kind of germs, secure and hygienic, further adding a spectacular look to the overall decor.*

* Greenlam Safeguard Plus Anti Bacterial Laminates retard the growth of nearly 99% of common form of bacteria on any decorative surface.



BACTERIAL GROWTH

The time bomb is ticking!

Bacteria is present everywhere. You can find them in the air, on food, plants and animals, in the soil, in the water, and on just about every other surface – including your own body. Bacterial growth is formidable adversaries because they're constantly mutating to breach your immune system's defenses. Knowing more about how germs work can increase your chances of avoiding infection. Many disease-causing bacteria produce toxins – powerful chemicals that damage cells and make you ill.

Have you ever realized how harmful they are? Don't you wish you were safeguarded against all bacterial growth for a 24*7 active lifestyle? Protecting your health and the health of those around you depends on many factors that may seem overwhelming when they are discussed at the same time. As with most life changes, practice will make it all seem simple. Now falling sick can be prevented with the solution that Greenlam Safeguard Plus Anti Bacterial Laminates bring to the world and make life seem that much nicer.

THE PRODUCT

Greenlam Safeguard Plus Anti Bacterial Laminates retard the growth of nearly 99% of common form of bacteria on any decorative surface. Greenlam Safeguard Plus Laminate surface is produced by permanently incorporating a US-EPA approved, well known and widely used anti microbial agent during the manufacturing. The anti microbial agent used for manufacturing these laminates is also a common ingredient in many cosmetics and oral hygiene products in everyday use.



Tested as per ASTM G-22 Standards, Greenlam Safeguard Plus Laminates retard the growth of the microbes with great efficiency. The testing was done by Shri Ram Institute for Industrial Research, New Delhi, an ISO - 9001 certified institute and an approved test house in India.



COMMON BACTERIA ERADICATED WHEN YOU USE GREENLAM SAFEGUARD PLUS LAMINATES IN YOUR INTERIORS:

Staphylococcus Aureus

Streptococcus Faecalis

Escherichia Coli

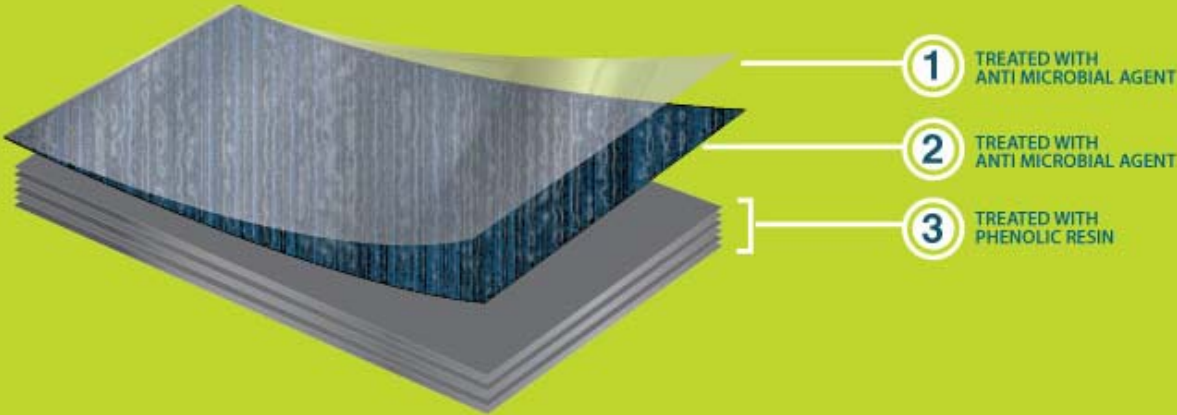
Klebisella Pneumoniae

GREENLAM SAFEGUARD PLUS ANTI BACTERIAL LAMINATE SURFACE RETARDS THE GROWTH OF MICROBES COMPLETELY. TREATED WITH MELAMINE RESIN AND HIGH EFFICIENCY MICROBIAL AGENTS, THESE COME IN STANDARD GRADE AND COMPACT GRADE LAMINATES.

GREENLAM SAFEGUARD PLUS LAMINATE

Construction
Technique

GREENLAM SAFEGUARD PLUS Anti Bacterial Laminates come in 1mm (Standard Grade) thickness.



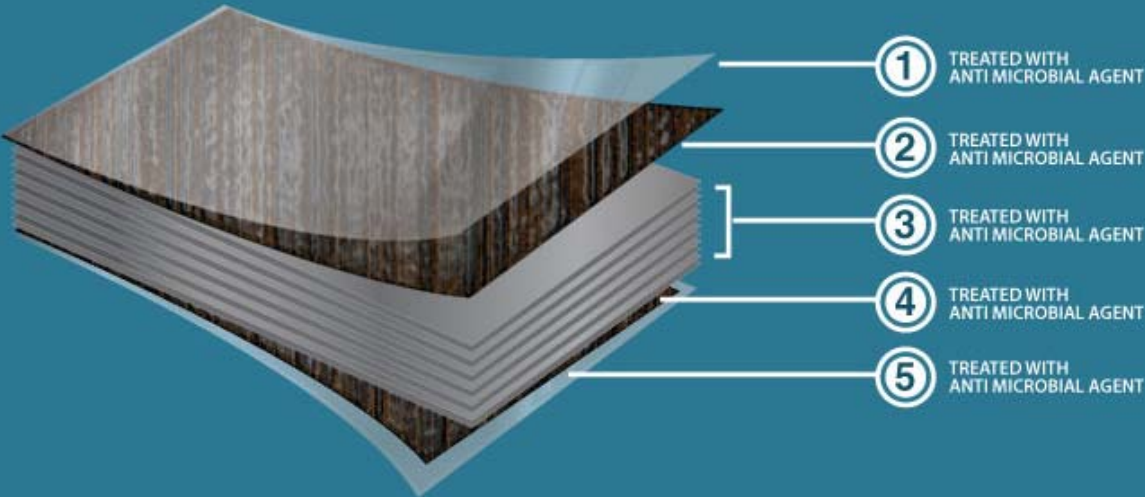
		STANDARD GRADE LAMINATE	GREENLAM SAFEGUARD PLUS LAMINATE
1	Top Layer Tissue Paper	Treated with Melamine Resin only	Treated with Melamine Resin + High-efficiency Anti Microbial Agents
2	2nd Layer Decorative/Design Paper	Treated with Melamine Resin only	Treated with Melamine Resin + High-efficiency Anti Microbial Agents
3	Rest Layers Kraft/Brown Paper	Treated with Phenolic Resin	Treated with Phenolic Resin

★ NOTE: In case there is no tissue paper used for producing a laminate, only decorative/design paper is treated with melamine resin + high-efficiency anti-microbial agents.

GREENLAM SAFEGUARD PLUS COMPACT LAMINATE

Construction
Technique

GREENLAM SAFEGUARD PLUS Anti Bacterial Compact Grade Laminates come in a range of 4mm to 18mm thickness.



	COMPACT LAMINATE	GREENLAM SAFEGUARD PLUS COMPACT LAMINATE
①	Top Layer Tissue Paper	Treated with Melamine Resin only
②	2nd Layer Decorative/Design Paper	Treated with Melamine Resin only
③	Rest Layers Kraft/Brown Paper	Treated with Phenolic Resin
④	2nd Last Layer Decorative/Design Paper	Treated with Melamine Resin only
⑤	Bottom Layer Tissue Paper	Treated with Melamine Resin only

OUR APPLICATION AREAS:



IN ALL OUR ACTIVITIES IN DAILY LIFE, WE STRIVE TO MAKE THE MINIMUM IMPACT ON THE ENVIRONMENT. WHERE IT IS UNAVOIDABLE, WE STRIVE TO REDUCE THE NEGATIVE EFFECTS AS MUCH AS POSSIBLE. IN THIS ENDEAVOUR, GREENLAM SAFEGUARD PLUS ANTI BACTERIAL LAMINATES PLAY A VITAL ROLE IN PROTECTING YOUR PERSONAL SPACE FROM ALL HARMFUL MICROBES AND BACTERIAL AGENTS AND ALSO IMPROVING THE DÉCOR.

THE ANTI BACTERIAL LAMINATES MAY BE USED IN ALL AREAS WHERE A LAMINATE IS APPLICABLE, ESPECIALLY:



Hospitals & Health Care Facilities

Since bacteria can cause infections that cannot be seen, one can either ignore them or fear the illnesses they can cause. A more effective approach is to try to increase the ability of the human body to resist infection. Usage of Greenlam Safeguard Plus Laminates in hospitals and health care centres reduces the contact with bacteria and viruses, thus giving everyone complete protection from bacterial growth.



Many times, tables at restaurants are cleaned with dirty rags carrying all types of bad bacteria. Thus, the risk of transmission of bacteria from a person's hand to food increases greatly. Keeping food on the tables made of Greenlam Safeguard Plus Laminates reduces the risk of contamination and spreading of bacteria from one to the other.



Restaurants



Kindergarten

Everyone tries to protect their kids from harmful and bad influences but the spread of bacteria cannot be stopped. Especially in schools, kids come in contact with bacteria on a daily basis. Because of that, they seem to be constantly spreading bacteria from one place to another. Greenlam Safeguard Plus Laminates when used on walls and cabinets as part of vertical application and on tables as horizontal application can retard the growth of bacteria to a large extent, thus keeping the environment bacteria-free.





Lounges, Restrooms, Storage Rooms

Everyone uses public restroom at one time or another, usually at school, office, theatre, store or sporting event. And thousands of people visit these same restrooms. One can only imagine how many varieties of microbes are left by these users on doors, faucets, soap dispensers, towel dispensers, and toilet flushers. Greenlam Safeguard Plus Laminates when applied on walls as a part of vertical application help to counter bacteria at an amazing rate.



To clean the kitchen counters and sink, everyone uses a sponge or rag or a one-time wipe to make it all perfectly clean. But not everytime do they seem to yield the optimum results. Bacteria spreading in the kitchen are through hands that come in direct contact with the food or with the food kept exposed to the atmosphere. Only Greenlam Safeguard Plus Laminates can make kitchens bacteria and germs-free. These laminates come with a special quality that retards bacterial growth thus keeping a family healthy all the time.

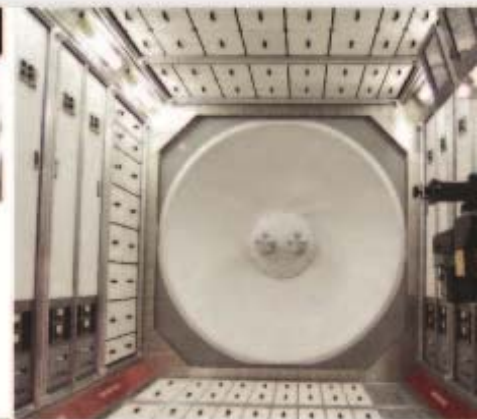


Kitchens



Laboratories

Everyone encounters bacterial transmission in their daily lives. Greenlam Safeguard Plus Laminates are the best alternative to get protection from infection. Everyday, researchers and technologists work with harmful chemicals and reacting agents in the laboratory. An accidental spill of these agents may contaminate the hands which may soon pass and have a negative effect on the body. Using Greenlam Safeguard Plus Laminates on the surface of tables and walls in the laboratory will prove to be a big boon as it provides bacterial protection to the health in this particular surrounding.



Public Transport and corridors

Germs, including bacteria, are everywhere but they can be particularly concentrated where there are large amounts of people packed into close quarters, especially in public transports, stairs and corridors. This description practically defines public transportation across all environments, which is why it is so important to have a healthy immune system while traveling. When Greenlam Safeguard Plus Anti Bacterial Laminates are applied in these places, they prevent bacteria from multiplying, reducing chances of infection.



Range & Product Availability: STANDARD GRADE LAMINATE (1mm Thick)

ABSTRACT PATTERNS

CONTRA STRIPES



5548 Peppy Blue

5547 Snappy Green

ELEGANT TWEEDS



503 Mod Twine (TXM)



504 Earthy Elite (TXM)

TXM denotes Texmex Finish

SOLIDS



101 White



124 Mysore Ivory



141 Beige



207 Divine Yellow



259 Lime



261 Dark Grey



107 Wool



152 Almond



291 Electric Blue



203 Red



181 Chocolate



401 Black

All designs here are available in Suede Finish unless mentioned.

For actual color, pattern & finish refer live samples as due to printing limitations there might be slight variation.

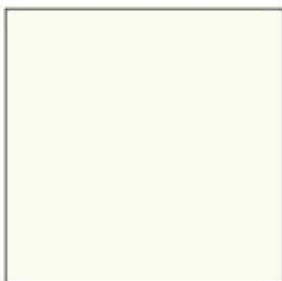


FINISHES

SUPER GLOSS



101 White (SGL)



107 Wool (SGL)



203 Red (SGL)

SGL denotes Super Gloss Finish

WOODGRAINS



5026 Sulphur Spring



682 Hilland Pine



770 Douglas Fir



5053 Fresh Prune



5056 Vogueish Prune



5003 Philippine Teak



5524 Samara Oak



5007 White Larch



5006 Tharsau Maple



719 Mangfall Beech



608 American Walnut



5023 Amber Flambe



738 Oak



5057 Nature's Oak



5004 Lorriane Walnut



5050 Umber Oak



731 Wenge



Range & Product Availability: COMPACT GRADE LAMINATE (4mm-18mm Thickness)

ABSTRACT



923 Meta Silver



929 Metaline Grey



COMPACT GRADE LAMINATE OFFERS THICKNESS OF 4/6/9/12/18mm. OTHER THICKNESSES ALSO AVAILABLE ON SPECIAL REQUEST.

SIZES:

1830mmx1830mm	6ftx6ft
1830mmx3660mm	6ftx12ft

WOODS



682 Hilland Pine



770 Douglas Fir



5006 Thansau Maple



719 Mangfall Beech



5525 Hickory Oak



5003 Phillipine Teak



5018 Brooks Walnut



749 Sapele



5061 Fine Wenge



111 Designer White

113 Frosty White



124 Mysore Ivory



133 Moon Stone



141 Beige



230 Cream Yellow



217 Light Orange



271 Light Grey



275 Pearl Grey



268 Dust



248 Leaf Green



134 Mud Ash



166 Blush Pink



291 Electric Blue



297 Blue Galaxy



261 Dark Grey



401 Black

SOLIDS

All designs here are available in Suede Finish unless mentioned.

For actual color, pattern & finish refer live samples as due to printing limitations there might be slight variation.

TECHNICAL SPECIFICATIONS

For your reference, technical specifications of our range of laminated panels are stated below:

Properties	Specified values as per IS: 2046 - 1995, Type S, HGS	Greenlam Safeguard Plus Conforms
Thickness	1.00mm (± 0.10mm)	✓
Resistance to surface wear	350 (revolution)	✓
Resistance to immersion in boiling water		
- Mass increase (%)	10.0 (Maximum)	✓
- Thickness increase (%)	11.8 (Maximum)	✓
- Appearance	Not worse than 4	✓
Resistance to dry heat 180°C	Not worse than 4	✓
Dimensional stability at deviated temperature		
- Longitudinal (%)	0.55 (Maximum)	✓
- Transverse (%)	1.025 (Maximum)	✓
Dimensional stability at 20°C		
- Longitudinal (%)	0.375 (Maximum)	✓
- Transverse (%)	0.60 (Maximum)	✓
Resistance to impact by small diameter ball	20 N (Minimum)	✓
Resistance to cracking	Not worse than 4	✓
Resistance to scratching	2 N (Minimum)	✓
Resistance to staining	Not worse than 5	✓
Resistance to colour change (wool standards)		
- In Xenon arc light	Not worse than 6	✓
- In enclosed Carbon arc light	Not worse than 5	✓
Resistance to cigarette burns	Not worse than 3	✓
Resistance to steam	Not worse than 4	✓
Appearance	Should be free from foreign particles	✓

Greenply warrants that all its products are free from manufacturing defects and perfectly fit for use under normal conditions. In case of any claims, the liability of the company is however limited to the cost of the product only.

Note: The samples shown here are only indicative of the colour patterns and finishes available.

- Greenalm Safeguard Plus is available in 1.00mm thickness

COMPACT LAMINATE - CGS

TECHNICAL SPECIFICATIONS FOR GREENLAM (TYPE CGS) - 12MM

S.NO.	PROPERTIES	UNIT	SPECIFIED VALUES NEMA LD 3-2005	GREENLAM SAFEGUARD PLUS TYPICAL VALUE
1	Thickness	mm	12.00 ± 0.60	12.00 ± 0.40
2	Appearance		No ABC def.	No ABC def.
3	Straightness	mm/meter (Max.)	1.5	1.2
4	Diagonal difference	mm (Max.)	6	3
5	Warpage			
	a) Single side decorative surface	mm (Max.)	120	40
	b) Double side decorative surface	mm (Max.)	12	6
6	Light resistance	Rating (Min.)	Slight effect	Slight effect
7	Cleanability	Rating (Max.)	20	10
8	Stain			
	a) Reagents I - 10	Rating (Min.)	No effect	No effect
	b) Reagents 11 - 15		Moderate effect	Slight effect
9	Boiling water resistance	Rating (Min.)	No effect	No effect
10	High temperature resistance	Rating	Slight effect	No effect
11	Ball impact resistance	mm (in) (Min.)	1900 (75")	2540 (100")
12	Radiant heat resistance coil method	Sec (Min.)	200	250
13	Dimensional change			
	a) Machine direction	% (Max.)	0.3	0.15
	b) Cross direction	% (Max.)	0.7	0.30
14	Room temprature dimensional stability			
	a) Machine direction	% (Max.)	0.3	0.10
	b) Cross direction	% (Max.)	0.7	0.20
15	Wear resistance	Cycles (Min.)	400	Plains - 400-500 Prints - 700
16	Flexural strength			
	a) Machine direction	Mpa (Min.) (MD)	124	130
	b) Cross direction	Mpa (Min.) (CD)	82.7	85
17	Flexural modulus			
	a) Machine direction	Mpa (Min.) (MD)	11000	11500
	b) Cross direction	Mpa (Min.) (CD)	9650	10000
18	Tensile strength			
	a) Machine direction	Mpa (Min.) (MD)	124	135
	b) Cross direction	Mpa (Min.) (CD)	82.7	90

Other thicknesses also available as per requirement .

ANTI BACTERIAL TEST PROPERTIES:

DESCRIPTION OF TEST		TEST RESULTS OF GREENLAM SAFE GUARD PLUS LAMINATES	
TEST PROTOCOL		ASTM G 22	
RESISTANCE TO BACTERIA		NO BACTERIAL GROWTH	
SUSCEPTIBILITY TO BACTERIA		NO SURFACE CONTAMINATION BY THE FOLLOWING BACTERIA: STAPHYLOCOCCUS AUREUS STREPTOCOCCUS FAECALIS ESCHERICHIA COLI KLEBSIELLA PNEUMONIAE	

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