

Antivirus &  
antibacterial  
laminates



**Greenlam**  
LAMINATES

# Technical Datasheet

Greenlam Unicore Laminate 1.0 mm



# TECHNICAL DATASHEET

## GREENLAM UNICORE LAMINATE THICKNESS: 1.00 MM

S. No.	PROPERTIES	Unit	TEST METHOD AS PER EN 438 Part 2 : 2016	SPECIFIED VALUES	TYPICAL GREENLAM
1	Classification		EN 438 -9: 2017, Table - 2 & 6	BTS*	BTS*
2	Nominal Thickness			1.00mm	
<b>DIMENSIONAL PROPERTIES</b>					
3	Surface Quality	mm <sup>2</sup> /M <sup>2</sup>	EN 438 -3-6.3, 5.2.4	1.0 (max)	Complies
4	Fibers, Hairs & Scratches	mm/M <sup>2</sup>		10.0 (max)	Complies
5	Thickness maximum variation	mm	EN 438 -2 - 5	± 0.15	Complies
6	Length & Width	mm	EN 438 -2 - 6	+10mm / -0mm	+5mm / -0mm
7	Flatness	mm/M	EN 438 -2 - 9	100.0 (max)	≤ 50
8	Edges Straightness	mm/M	EN 438 -2 - 7	1.5 (max)	Complies
9	Edges Squareness	mm/M	EN 438 -2 - 8	1.5 (max)	Complies
<b>SURFACE PROPERTIES</b>					
10	Resistance to Dry Heat at 160° C	Rating	EN 438 -2 - 16	Gloss Finish - 3 (min) Other Finishes-4 (min)	Complies
11	Resistance to Surface Wear	Revolutions	EN 438 -2 - 10	150 (min.) IP	Complies
12	Resistance to Stain		EN 438 -2 - 26		
		Group 1 & 2	Rating (min.)	5 (min.)	5
		Group 3	Rating (min.)	4 (min.)	≥ 4
13	Resistance to Scratching	Rating	EN 438 -2 - 25	Gloss Finish - 2 (min) Other Finishes-3 (min)	Complies
14	Resistance to Water Vapor, Appearance	Rating	EN 438 -2 - 14	Gloss Finish - 3 (min) Other Finishes-4 (min)	Complies
15	Light Fastness (Xenon -Arc Light)	Grey scale rating	EN 438 -2 - 27	Surface - 4 (min.) Core - 3 (min.)	Complies
<b>PHYSICAL PROPERTIES</b>					
16	Resistance to Immersion in Boiling Water	Surface Rating	EN 438 -2 - 12	Gloss Finish - 3 (min) Other Finishes-4 (min)	5
17	Dimensional stability at Elevated temperatures		EN 438 -2 - 17		
		Longitudinal	%	0.80 (max.)	Complies
		Transverse	%	1.40 (max.)	Complies
18	Density	g/cm <sup>3</sup>	EN ISO 1183 -1 :2019	1.40 (min.)	Complies
<b>HEALTH AND ENVIRONMENTAL PROPERTIES</b>					
19	Formaldehyde Release	Ppm	EN 16516:2017	0.1	0.2
		Certificate	UL -2818:2022	Greenguard Gold	Complies
		Rating	EN 13986	No requirement	Less than E1
20	Food safe		EN 13130 -1	Yes	Yes
21	Antibacterial Efficacy Microbial activity & Microbial Kill	Reduction	JIS Z 2801: 2012	2.0 (min) 99.5% (min)	Complies
22	AntiViral Efficacy	Reduction	ISO 21702:2019	95.0% (min)	99.9
23	Antifungal Efficacy	Growth after 28 days	ASTM G -21-2015	Rating 1	Rating 0 (No Growth)

**BTS-** Coloured core layer Thin Standard Laminates  
**BTF-** Coloured core layer Thin Fire Retardant Laminates  
**\*\*Fire test performance** will depend on laminate thickness and construction, substrate type and thickness, and adhesive used. It is advised to contact the laminate manufacturer for details of test reports and certifications held. Greenlam can supply type S and F HPLs.  
**Class (Rating)** – 1= Surface damage, 2= Severe appearance alteration, 3= Moderate change, 4= Slight change visible at certain angle, 5= No change

**Virus tested:** MS2 Bacteriophage  
**Bacteria tested** – 1.Staphylococcus aureus. 2.Escherichia coli, 3.Klebsiella pneumoniae  
 4.Meticillin Resistant Staphylococcus aureus (MRSA) S- 129 5.Pseudomonas aeruginosa  
 6.Salmonella typhimurium 7.Streptococcus faecalis 8.Enterococcus faecalis 9.Candida albicans  
**Fungus tested:** 1.Aspergillus niger 2. Penicillium funiculosum 3. Gliocladium virens 4. Chaetobium globosum 5. Aurobasidium pullulans  
 As per the test report 99.99% of bacteria and virus gets retarded within 24 hours of contact.

### LIMITED WARRANTY

Greenlam Industries Limited (GREENLAM®) warrants to the original Buyer that GREENLAM® HPL will be free of defects, under normal, proper and intended usage within acceptable manufacturing specifications for a period of one (1) year from date of sale to the original Buyer.  
 Buyer's remedy in case of claims, as a result of defective HPL, shall be limited to only the replacement of HPL by GREENLAM®.

### TRADEMARKS

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### CHANGE OF SPECIFICATION

The company reserves the right to change specifications at any time without prior notice, It is recommended that you request actual samples prior to specification.



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**Greenlam**  
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