

Antivirus &  
antibacterial  
laminates



**Greenlam**  
LAMINATES

# Technical Data Sheet

Greenlam Laminates 0.80 mm

# TECHNICAL SPECIFICATIONS

## GREENLAM LAMINATE, HGS THICKNESS: 0.80 mm

Sr. No.	PROPERTIES	Unit	TEST METHOD AS PER EN 438 Part 2 & 3: 2016	SPECIFIED VALUES	GREENLAM TYPICAL VAULES
<b>GENERAL</b>					
1	Classification		EN 438-3 Table- 3	HGS	HGS*
<b>DIMENSIONAL PROPERTIES</b>					
2	Surface Quality	mm <sup>2</sup> /M <sup>2</sup>	EN 438-3-6.3, 5.2.4	1.0 (max)	Complies
3	Fibers, Hairs & Scratches	mm/M <sup>2</sup>		10.0 (max)	Complies
4	Thickness & Maximum variation	mm	EN 438-2- 5	0.80 ± 0.10	Complies
5	Length & Width	mm	EN 438-2- 6	+10mm /-0mm	+5mm /-0mm
6	Flatness	mm/M	EN 438-2 - 9	60.0 (max)	≤ 50
7	Edge Damage	mm	EN 438-2- CL. 6.2.5.3	20.0 (max)	Complies
8	Edges Straightness	mm/M	EN 438-2 - 7	1.5 (max)	≤ 1
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 (min.)	EN 438-2 - 16	4	Complies
11	Resistance to Surface Wear	Revolutions	EN 438-2 - 10	150 (min.) IP	Complies
12	Resistance to Stains	Group 1 & 2	Rating (min.)	EN 438-2 - 26	5
		Group 3	Appearance		4
13	Resistance to Wet Heat at 100° C	Rating (min.)	EN 438-2 - 18	4	Complies
14	Resistance to Scratching	Rating	EN 438-2 - 25	3	Complies
15	Resistance to Water Vapor, Appearance	Rating	EN 438-2 - 14	4	Complies
16	Light Fastness (Xenon-Arc Light)	Contrast	EN 438-2 - 27	4 to 5	4
17	Resistance to cigarette burn	Rating	EN 438-2: 2005 Part- 30	4	Complies
<b>PHYSICAL PROPERTIES</b>					
18	Resistance to Impact by Large Diameter Ball	Drop Height	mm	800 (min.)	1000
		Diameter of Indentation	mm	10 (max)	7
19	Resistance to Impact by Small Diameter Ball	N	EN 438-2 - 20	20 (min)	Complies
20	Resistance to Immersion in Boiling Water	Rating	EN 438-2 - 12	4	Complies
21	Dimensional stability at Elevated temperatures	Longitudinal	%	0.55 (max.)	Complies
		Transverse	%	1.05 (max.)	Complies
22	Resistance to cracking	Rating	EN 438-2 - 23	4 (min)	5
23	Density	g/cm <sup>3</sup>	EN ISO 1183 -1 :2019	1.35 (min.)	Complies
<b>HEALTH AND ENVIRONMENTAL PROPERTIES</b>					
24	Formaldehyde Release	Ppm	EN 16516:2017	0.1	0.2
		Certificate	UL-2818:2022	Greenguard Gold	Complies
25	Food safe	mg/dm <sup>2</sup>	EN 1186-1:2002 EN 1186-3:2022	Migration of 10	Pass
26	Anti-bacterial Efficacy	Reduction	JIS Z 2801: 2012	2.0 (min) 99.5% (min)	Complies
27	Anti-Viral Efficacy	Reduction	ISO 21702:2019	95.0% (min)	99.9
28	Anti-fungal Efficacy	Growth after 28 days	ASTM G-21-2015	Rating 1	Rating 0 (No Growth)

HGS = Horizontal General Purpose Standard  
HGP = Horizontal General Purpose Post Forming Grade  
HGF (FR) = Horizontal General Purpose FIRE RETARDANT  
\*\*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) 5- 129 5.Pseudomonas aeruginosa  
6.Salmonella typhimurium 7.Streptococcus faecalis 8.Enterococcus faecalis 9.Candida albicans  
Fungus tested: 1.Aspergillus niger 2. Penicillium funiculosos 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

GREENLAM®, & GREENLAM® logo are registered trademarks of Greenlam Industries Ltd or its subsidiaries.

### 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.



**GLOBAL HEADQUARTERS:**

2nd Floor, West Wing, Worldmark 1,  
Aerocity IGI Airport Hospitality District,  
New Delhi, India - 110037

**T** +91-11-4279-1399

**E** [info@greenlam.com](mailto:info@greenlam.com)

**W** [www.greenlam.com](http://www.greenlam.com)



**Greenlam**  
Industries Limited