



Greenlam

AFX

ANTI FINGERPRINT SURFACES

TECHNICAL DATA SHEET - LAMINATES/HPL

TECHNICAL SPECIFICATIONS

LAMINATES/HPL



S. NO.	PROPERTIES	Unit	TEST METHOD AS PER EN 438 Part 2 : 2016	SPECIFIED VALUES	TYPICAL GREENLAM	
1	Classification		EN 438-3 Table- 3	HGS*	HGS*	
2	Product features			Electron Beam Cured, Anti Finger Print, Near Zero Reflection, Ultra Matt Surface, Thermal healing of micro scratches		
DIMENSIONAL PROPERTIES						
3	Product offer, L x B	M			1.30M x 3.05M	
4	Surface Quality	mm ² /M ²	EN 438-3-6.3, 5.2.4	1.0 (max)	Complies	
5	Fibers, Hairs & Scratches	mm/M ²		10.0 (max)	Complies	
6	Thickness & Maximum variation	mm	EN 438-2 – 5	0.70 ± 0.10 0.80 ± 0.10	0.70 ± 0.05 0.80 ± 0.05	
7	Length & Width	mm	EN 438-2 – 6	+10mm /-0mm	+5mm /-0mm	
8	Flatness	mm/M	EN 438-2 – 9	60.0 (max)	≤ 50	
9	Edges Straightness	mm/M	EN 438-2 – 7	1.5 (max)	≤ 1	
10	Edges Squareness	mm/M	EN 438-2 – 8	1.5 (max)	Complies	
SURFACE PROPERTIES						
11	Resistance to Dry Heat at 160° C	Rating	EN 438-2 -16	Not worse than 4	5	
12	Resistance to Surface Wear	Revolutions	EN 438-2 - 10	150 (min.) IP	300	
13	Resistance to Stains	Group 1 & 2 Group 3	Rating (min.) Appearance	EN 438-2 - 26	5 4	5 ≥ 4
14	Resistance to Wet Heat at 100°C	Rating	EN 438-2 - 18	5	5	
15	Resistance to Scratching	Rating	EN 438-2 - 25	5	5	
16	Resistance to Water Vapor, Appearance	Rating	EN 438-2 -14	4 (min.)	5	
17	Light Fastness (Xenon-Arc Light)	Contrast	EN 438-2 - 27	4 to 5	4	
18	Resistance to Micro scratches (Surface visual assessment)	Class	EN 438-2 -30	No requirement	5	
19	Surface Gloss	GU	EN 13722	<10 ± 3	Less than 4	
20	*Chemical Spot Test	Level	SEFA 8-PL-2010 Method 81	Not more than 4 Level-3 conditions	Less than 4 conditions	
PHYSICAL PROPERTIES						
21	Resistance to Impact by Large Diameter Ball		EN 438-2 – 21			
	a) Drop Height	mm		800 (min.)	1000	
	b) Diameter of Indentation	mm		10 (max)	7	
22	Resistance to Impact by Small Diameter Ball	Rating	EN 438-2 - 20	20 (min)	25	
23	Resistance to Immersion in Boiling Water	Rating	EN 438-2 - 12	4 (min)	5	
24	Dimensional stability at Elevated temperatures		EN 438-2 - 17			
	Longitudinal	%		0.55 (max.)	Complies	
	Transverse	%		1.05 (max.)	Complies	
25	Resistance to cracking	Rating	EN 438-2 - 23	4 (min)	5	
26	Density	g/cm ³	EN ISO 1183 -1 :2004	1.35 (min.)	1.38	
27	Electrostatic Dissipation Property	Ω	EN 61340-4-1	No requirement	1 x 10 ¹⁰ to 10 ¹¹	
FIRE PERFORMANCE						
28	Reaction to Fire (Tested according to EN 13823:2010 & EN 11925-2 :2010)*	Euro class	EN 13501-1: 2007+ A1:2009	See foot note on Fire Performance**		
HEALTH AND ENVIRONMENTAL PROPERTIES						
29	Formaldehyde Release	ppm Certificate	EN 16516:2017 UL-2818:2013	0.1 Greenguard Gold	0.02 Complies	
		Rating	EN 13986	No requirement	Less than E1	
30	Emissions with respect to Indoor Air Quality:	mg/M ³	UL-2818:2013	0.22	Conforms	
	TVOC	ppb ³	Greenguard Gold standards	7.3	Conforms	
	Formaldehyde (CAS 50-00-0)	ppm		0.043	Conforms	
	Total Aldehydes	µg/M ³		6.5	Conforms	
	4-Phenylcyclohexene (CAS 4994-16-5)	µg/M ³		20	Conforms	
	Particle Matter less than 10 µm	µg/M ³		160	Conforms	
	1-Methyl-2-pyrrolidinone (CAS 872-50-4)	--		1/2 CREL or 1/100th TLV	Conforms	
31	Product sanitization/hygiene	--	NSF/ANSI 35	NEMA Assessment	Conforms	
32	Transfer of constituents to Food during contact	Migration of 10 mg/dm ²	EN 1186-1:2002 EN 1186-3:2002 EN 1186-14:2002	3% Acetic Acid 95% Ethanol Iso-Octane	1.0 1.1 Less than 0.1	
33	Food safe		EN 13130-1	Yes	Yes	
34	Antibacterial Efficacy	Reduction	JIS Z 2801: 2010	2.0 (min)	Complies	
	Microbial activity & Microbial Kill			99.5% (min)	Complies	
35	AntiViral Efficacy	Reduction	ISO 21702:2019	95.0 (min)	99.9	
36	Antifungal Efficacy	Growth after 28 days	ASTM G-21-2015	Rating 1	Rating 0 (No Growth)	

Fire test performance will depend on laminate & compact 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 – Pseudomonas, 2. Enterococcus Faecalis, 3. Candida Albicans 4. Pseudomonas Aeruginosa 5. Escherichia Coli 6. Klebsiella 7. MRSA (Methicillin Resistant Staphylococcus Aureus) 8. Salmonella Enterica
Fungus tested: 1. Aspergillus niger 2. Penicillium funiculosum 3. Gliocladium virens 4. Chaetobium globosum 5. Aureobasidium pullulans

Surface Finish: Ultra Matt ● Robust, resistant to dirt, Anti finger Marks, caressing silky feel. ● Size available : 1300 x 3050 mm i.e. 4.25' x 10' ● Thickness offering : 0.7 mm – 24 mm.

Note: Whereas Greenlam products are manufactured thoroughly to standards, the nature of the application procedure is beyond our control. The values given above are to the best of knowledge but without liability/warranty, expressed or implied. I Greenlam AFX Compact Laminates can be made available in Fire Retardant variants also.

Greenlam provides FSC® Certified product (Certificate No. SCS-COC-003328), on request.

*SEFA chemical spot test does not comply with Sulphuric Acid, Sulphuric Acid+ Nitric Acid, Sodium Hydroxide and Hydrogen Peroxide 30%.





GLOBAL HEADQUARTERS

2nd Floor, West Wing, Worldmark 1,
Aerocity, IGI Airport Hospitality District,
New Delhi - 110 037.

T: +91-11- 42791399

E: info@gremlam.com, W : www.gremlam.com

