Greenlam

AFX

ANTI FINGERPRINT SURFACES

TECHNICAL DATA SHEET - COMPACT LAMINATES

TECHNICAL SPECIFICATIONS
COMPACT LAMINATES

Greenlam | AFX ANTI FINGERPRINT SURFACES

S. No.	Properties	Unit	Test method as per EN 438 Part 2 & 4 :2016	18.0mm Specified values	18.0mm Typical Results Greenlam	12.0mm Specified values	12.0mm Typical Results Greenlam	10.0mm Specified values	10.0mm Typical Results Greenlam	9.0mm Specified values	9.0mm Typical Results Greenlam	8.0mm Specified values	8.0mm Typical Results Greenlam	6.0mm Specified values	6.0mm Typical Results Greenlam	4.0mm Specified values	4.0mm Typical Results Greenlam
1	Classification		EN 438-4- 4	Compact General purpose standard, CGS													
	PHYSICAL & DIMENSIONAL PROPERTIES																
2	Thickness	mm	EN 438-2 - 5	18.0 ± 0.70	Complies	12.0 ± 0.50	Complies	10.0 ± 0.50	Complies	9.0 ± 0.50	Complies	8.0 ± 0.50	Complies	6.0 ± 0.40	Complies	4.0 ± 0.30	Complies
3	Length & width	mm	EN 438-2 - 6	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies	+10mm/ -Nil	Complies
4	Density	g/cm3	EN ISO 1183 -1:2004	1.35 (min)	1.4	1.35	1.4	1.35	1.4	1.35	1.4	1.35	1.4	1.35	1.39	1.35	1.39
5	Dimensional Stability at Elevated Temperature		EN 438-2 -17														
	Longitudinal Direction	%		0.30 (max)	0.06	0.30 (max)	0.08	0.30 (max)	0.1	0.30 (max)	0.11	0.30 (max)	0.12	0.30 (max)	0.16	0.40 (max)	0.28
	Transverse Direction	%		0.60 (max)	0.14	0.60 (max)	0.15	0.60 (max)	0.19	0.60 (max)	0.21	0.60 (max)	0.25	0.60 (max)	0.29	0.80 (max)	0.38
	MECHANICAL PROPERTIES																
6	Resistance to Immersion in Boiling Water (2 hours)		EN 438-2 -12														
	Mass Increase	%		2.0 (max)	0.2	2.0 (max)	0.24	2.0 (max)	0.29	2.0 (max)	0.31	2.0 (max)	0.39	2.0 (max)	0.64	2.0 (max)	0.94
	Thickness Increase	%		2.0 (max)	0.6	2.0 (max)	0.68	2.0 (max)	0.78	2.0 (max)	0.84	2.0 (max)	0.95	2.0 (max)	1.12	2.0 (max)	1.48
	Appearance	Rating		Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
7	Resistance to Impact by Large Diameter Ball																
	Drop Height	mm	EN 438-2 -21	1800	1900	1800	1900	1800	1900	1800	1900	1800	1900	1800	1900	1400	1500
	Diameter of Indentation	mm		10 (max)	7	10 (max)	7	10 (max)	8	10 (max)	8	10 (max)	8	10 (max)	8	10 (max)	7
8	Flexural Modulus	Mpa	EN ISO 178; 2003	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies
9	Flexural Strength	Mpa		80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies
10	Resistance to Crazing	Rating	EN 438-2 -24	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
	SURFACE PROPERTIES																
11	Resistance to Water Vapor	Rating	EN 438-2 -14	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
12	Resistance to Dry Heat at 160° C	Rating	EN 438-2 -16	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
13	Resistance to Wet heat @100°C	Rating	EN 438-2 -18	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
14	Resistance to Surface Wear, IP	Rev.	EN 438-2 -10	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies
15	Resistance to Scratching	N	EN 438-2 -25	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)	2.0 (min)	2.5 (min)
		Rating	EN 438-2 -25	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5	Not worse than 4	5
16	Resistance to staining	Rating	EN 438-2 -26														
	Group 1 & 2			5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Group 3			4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4
17	Light fastness (Xenon Arc Lamp)- Grey Scale Contrast	Rating	EN 438-2 -27	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies
	FIRE PERFORMANCE																
18	Reaction to Fire	EN 13501-1	Euroclass	D-s2, d0	Complies	C-s2, d0	Complies	C-s2, d0	Complies	D-s2, d0	Complies	D-s2, d0	Complies	D-s2, d0	Complies	D-s2, d0	Complies
1	Calorific Value	ISO 1716: 2010	MJ/kg	19.91 (max)	19.88	19.91 (max)	19.88	19.91 (max)	19.88	19.91 (max)	19.88	19.91 (max)	19.88	19.91 (max)	19.88	19.91 (max)	19.88
	HEALTH & ENVIRONMENTAL CHARACTERISTICS																
20	Food safe	EN 13130-1	-	-	YES	-	YES	-	YES	-	YES	-	YES	-	YES	-	YES
21	Contents' migration as per Food Commission Regulation	EN 1186-1, 3 & 14: 2002	Migration	Migration of Simulants is less than maximum permitted by Regulation													
22	Formaldehyde emission (release)	EN 16516-2017	ppm	0.1	0.02	0.1	0.02	0.1	0.02	0.1	0.02	0.1	0.02	0.1	0.02	0.1	0.02
23	Volatile Organic Compouns (VOC)	ISO 16000-9	Class	-	A	-	A	-	A	-	A	-	A	-	A	-	A
	Emission	UL 2818 - 2013	Certification	GREENGUARD GOLD													
24	AntiViral Efficacy Reduction	ISO 21702:2019															
	% Reduction in 24 hours		%	95% (min)	99.9% (min)	95% (min)	99.9% (min)	95% (min)	99.9% (min)	95% (min)	99.9% (min)	95% (min)	99.9% (min)	95% (min)	99.9% (min)	95% (min)	99.9% (min)
	Activity after 24 hours		Log Reduction	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceed
25	Anti-bacterial Efficacy & activity	JIS 2801-2012															
	% Reduction in 24 hours		%	95.0 (min)	99.99	95.0 (min)	99.99	95.0 (min)	99.99	95.0 (min)	99.99	95.0 (min)	99.99	95.0 (min)	99.99	95.0 (min)	99.99
	Activity after 24 hours		Log Reduction	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds	2.0 (min)	Exceeds
26	Anti-Fungus Efficacy	ASTM G-21-2015															
	Growth after 28 days		Class	1	0 (No Growth)	1	0 (No Growth)	1	0 (No Growth)	1	0 (No Growth)	1	0 (No Growth)	1	0 (No Growth)	1	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. Entrococcus Faecalis, 3.Candida Albicans 4.Pseudonomas Aeruginosa 5. Escherichia Coli 6. Klebsiella 7. MRSA (Methicilllin Resistant Stapphylococcus Aureus) 8. Salmonella Enterica

Fungus tested: 1.Aspergillus niger 2. Penicillum funicollosum 3. Gliocladium virens 4. Chaetobium globosum 5. Aurobasidium 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.

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