

Technical Specifications

S. No.	Properties	Unit	Test method as per EN 438 Part 2 & 4 :2016	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam	Specified values	Typical Results Greenlam
	Nominal Thickness	mm		18.0		12.0		10.0		9.0		8.0		6.0		4.0	
1	Classification		EN 438-4-4	Compact General purpose standard, CGS													
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 ± 0.40	Complies	6.0 ± 0.40	Complies	4.0 ± 0.30	Complies
3	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
4	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
5	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
6	Resistance to Immersion in Boiling Water (2 hours)																
	Mass Increase	%	EN 438-2 -12	2.0 (max.)	0.20	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	5.0 (max.)	0.94
	Thickness Increase	%		2.0 (max.)	0.60	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	6.0 (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	Dimensional Stability at Elevated Temperature																
	Longitudinal Direction	%	EN 438-2 -17	0.30(max.)	0.06	0.30(max.)	0.08	0.30(max.)	0.10	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
8	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
9	Resistance to Scratching	N	EN 438-2 -25	2.0 (min.)	2.5	2.0 (min.)	2.5	2.0 (min.)	2.5	2.0 (min.)	2.5	2.0 (min.)	2.5	2.0 (min.)	2.5	2.0 (min.)	2.5
10	Resistance to staining																
	Group 1 & 2	Rating	EN 438-2 -26	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
11	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
12	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
13	Resistance to Crazeing	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
14	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
15	Flexural Strength	Mpa		80 (min.)	Complies	80 (min.)	Complies	80 (min.)	Complies	80 (min.)	Complies	80 (min.)	Complies	80 (min.)	Complies	80 (min.)	Complies
16	Density	g/cm3	EN ISO 1183 -1:2004	1.35 (min)	1.40	1.35	1.40	1.35	1.40	1.35	1.40	1.35	1.40	1.35	1.39	1.35	1.39

Bio-Chemical Property	Standard	Unit	Requirement	Test Result
Antiviral Efficacy & Activity	ISO 21702-2019	% Reduction in 10 minutes	No Requirement	90.0% (Min.)
		% Reduction in 30 minutes	No Requirement	99.0% (Min.)
Virus tested			SARS CoV-2	
Antiviral Efficacy & Activity	ISO 21702-2019	% Reduction in 2 hours	No Requirement	90% (Min.)
		% Reduction in 24 hours	95.0 (Min.)	99.9% (Min.)
Virus tested		Activity after 24 hours	2.0 (Min.)	Exceeds
Antibacterial Efficacy & Activity	JIS 2801-2012	% Reduction in 24 hours	95.0 minimum	99.99
		Activity after 24 hours	2.0 (Min)	Exceeds
Bacteria tested		1. Pseudomonas Aeruginosa, 2. Enterococcus Faecalis, 3. Candida Albicans, 4. Pseudomonas Aeruginosa, 5. Escherichia Coli, 6. Klebsiella Pneumoniae, 7. MRSA (Methicillin Resistant Staphylococcus Aureus), 8. Salmonella Enterica		
Antifungal Efficacy	ASTM G-21-2015	Growth after 28 days	Rating 1	Rating O (No Growth)
Fungus tested		1. Aspergillus niger, 2. Penicillium funicolosum, 3. Gliocladium virens, 4. Chaetobium globosum, 5. Aurobasidium pullulans		

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.

- Greenlam Compact Laminates can be made available in Fire Retardant, Lab Guardian (Chemical Resistant) and Antistatic variants.
- All Greenlam Compacts are supplied with Anti-Viral (conforming to ISO21702), Anti-Bacterial (conforming to JIS2801) & Anti-Fungal (ASTM G21) properties by default.
- Dimensions of the boards offered:

Feet	mm
4' x 8'	1220 x 2440
4' x 10'	1220 x 3050
4.25' x 10'	1300 x 3050
5' x 6'	1525 x 1830
5' x 12'	1525 x 3660
6' x 6'	1830 x 1830
6' x 8'	1830 x 2440
6' x 12'	1830 x 3660

- Please refer to Index on range offering in above mentioned dimensions.
- Other thicknesses & sizes are also available as per requirement.
- Please contact your local representative for more information & complete range offerings.