PRODUCT TECHNICAL SHEET

Kormos Group Compact Laminates – CGS/CGF

Compact High Pressure Laminates (HPL) as per EN 438-4 : 2016, are available in the standard CGS and in the flame retardant CGF types on demand. When these laminates are self-supporting they are ready for installation.

SL. NO.	PROPERTIES	TEST METHOD	ATTRIBUTES OF PERFORMANCE	UNIT OF MEASUREMENT	RESULTS (AS PER EN 438-4)
			EN-438 Laminate Classification		CGS/CGF
1	SURFACE QUALITY				
1.1	Surface quality	EN 438-2.4	Spots, dirt and similar surface defects	mm^2/m^2	≤ 1
			Fibres, hairs and scratches	mm/m^2	≤ 10
2	DIMENSIONAL PROPERTIES				
2.1	Thickness	EN 438-2.5	Thickness tolerance	mm	2 ≤ T < 3 : ± 0,2
				mm	3 ≤ T < 5 : ± 0,3
				mm	5 ≤ T < 8 : ± 0,4
				mm	8 ≤ T < 12 : ± 0,5
				mm	12 ≤ T < 16 : ± 0,6
				mm	16 ≤ T < 20 : ± 0,7
				mm	20 ≤ T < 25 : ± 0,8
				mm	25 ≤ T : ± 1,3
2.2	Size	EN 438-2.6	Length and width	mm	+ 10 / - 0
2.3	Straightness of edges	EN 438-2.7	Straightness of edges	mm/m	≤ 1,5
2.4	Squareness	EN 438-2.8	Squareness	mm/m	≤ 1,5
2.5	Flatness	EN 438-2.9	Flatness (measured on full-size sheet)	mm/m	2,0 ≤ T < 6,0 : 8
				mm/m	6,0 ≤ T < 10,0 : 5
				mm/m	10,0 ≤ T : 3
3	PHYSICAL PROPERTIES				
3.1	Resistance to surface wear	EN 438-2.10	Wear Resistance - Initial Point	Revolutions	Unicolours - ≥ 150 Printed Décor - ≥ 125
3.2	Resistance to immersion in boiling water	EN 438-2.12	Mass increase - 2 ≤ T < 5 mm	%	CGS - ≤ 5 , CGF - ≤ 7
			Mass increase - T ≥ 5 mm	%	CGS - ≤ 2 , CGF - ≤ 3
			Thickness increase - 2 ≤ T < 5 mm	%	CGS - ≤ 6 , CGF - ≤ 9
			Thickness increase - T ≥ 5 mm	%	CGS - ≤ 2 , CGF - ≤ 6
			Appearance - Gloss Finish	Rating	≥ 3
			Appearance - Other Finishes	Rating	≥ 4
3.3	Resistance to water vapour	EN 438-2.14	Appearance - Gloss Finish	Rating	≥ 3
			Appearance - Other Finishes	Rating	≥ 4
3.4	Resistance to dry heat (160°C)	EN 438-2.16	Appearance - Gloss Finish	Rating	≥ 3
			Appearance - Other Finishes	Rating	≥ 4
3.5	Dimensional stability at elevated temperatures	EN 438-2.17	Cumulative dimensional change - 2 ≤ T<5mm	L %	≤ 0,40
				T %	≤ 0,80
			Cumulative dimensional change - T ≥ 5mm	L %	≤ 0,30
				T %	≤ 0,60
3.6	Resistance to impact with large diameter ball	EN 438-2.21	Indent. dia. 10mm 2 ≤T<6 mm - Drop Ht	mm	≥ 1400
			Indent. dia. 10mm T≥6mm - Drop Height	mm	≥ 1800
3.7	Resistance to crazing	EN 438-2.24	Appearance	Rating	≥ 4
3.8	Resistance to scratching	EN 438-2.25	Appearance - Smooth Finishes	Rating	≥ 2
			Appearance - Textured Finishes	Rating	≥ 3
3.9	Resistance to staining	EN 438-2.26	Appearance - Group 1 & 2	Rating	≥ 5
			Appearance - Group 3	Rating	≥ 4
3.10	Light fastness (Xenon arc)	EN 438-2.27	Contrast	Grey scale rating	4 to 5
3.11	Flexural modulus	EN ISO 178	Stress	Mpa	≥ 9000
3.12	Flexural strength	EN ISO 178	Stress	Mpa	≥ 80
3.13	Density	EN ISO 1183	Density	gm/cm^3	≥ 1,35
4	FIRE PERFORMANCES		Test as per EN 13823 (SBI test) and EN ISO 11925-2 (Small-burner test)		
4.1	Fire Reaction Classification, CGF	EN 13501	Classification - 3 ≤ T < 6 mm	Rating	B - s2, d0
			Classification - T ≥ 6 mm	Rating	B - s1, d0
4.2	Fire Reaction Classification, CGS	EN 13501	Classification - 6 ≤ T < 10 mm	Rating	D - s1, d0
			Classification - T ≥ 10 mm	Rating	B - s1, d0
5	OTHER PROPERTIES				
5.1	Release of Formaldehyde	EN 438-7.4.11.1	Classification	Rating	E1

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Disclaimer :

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