CROWN
LAMINATES & BEYOND

TECHNICAL DATA SHEET

PRODUCT TECHNICAL SHEET
CROWN DÉCOR COMPACT LAMINATES
Compact High Pressure Laminates (HPL) as per EN 438-4:2016

SR.NO.	PROPERTIES	TEST METHOD	UNIT OF MEASUREMENT	ATTRIBUTES OF PERFORMANCE	RESULTS (AS PER EN 438-4)
				EN-438 LAMINATE CLASSIFICATION **Type CGS**	
1	**SURFACE QUALITY**				
1.1	**Surface Quality**	EN 438-2.4	mm^2/m^2	Spots, dirt and similar surface defects	≤ 1
			mm/m^2	Fibers, hairs, and scratches	≤ 10
2	**DIMENSIONAL PROPERTIES / STABILITY**				
2.1	**Thickness**	EN 438-2.5	mm	2.0 ≤ t < 3.0mm : ± 0.20 mm 3.0 ≤ t < 5.0mm : ± 0.30 mm 5.0 ≤ t < 8.0mm : ± 0.40 mm 8.0 ≤ t < 12.0mm : ± 0.50 mm 12.0 ≤ t < 16.0mm : ± 0.60 mm 16.0 ≤ t < 20.0mm : ± 0.70 mm 20.0 ≤ t < 25.0mm : ± 0.80 mm 25.0 ≤ t to be agreed between supplier and customer	2.0 ≤ t < 3.0mm : ± 0.20 mm 3.0 ≤ t < 5.0mm : ± 0.30 mm 5.0 ≤ t < 8.0mm : ± 0.40 mm 8.0 ≤ t < 12.0mm : ± 0.50 mm 12.0 ≤ t < 16.0mm : ± 0.60 mm 16.0 ≤ t < 20.0mm : ± 0.70 mm 20.0 ≤ t < 25.0mm : ± 0.80 mm 25.0 ≤ t to be agreed between supplier and customer
2.2	**Size**	EN 438-2.6	mm	Length and Width +10/-0	+ 05 / - 0
2.3	**Straightness of edges**	EN 438-2.7	mm/m	Straightness of edges ≤ 1.5	≤ 1
2.4	**Squareness**	EN 438-2.8	mm/m	Squareness ≤ 1.5	≤ 1
2.5	**Flatness (measured on full size sheet)**	EN 438-2.9	mm/m	For 2.0 ≤ t < 6.00mm : 8	5
			mm/m	For 6.0 ≤ t < 10.00mm : 5	3
			mm/m	10.0 ≤ t : 3	2
3	**PHYSICAL PROPERTIES**				
3.1	**Resistance to Surface Wear**	EN 438-2.10	Revolutions	Wear Resistance - Initial Point	Unicolours - ≥ 200 Printed Décor - ≥ 175
			Revolutions	Wear Resistance - Wear Value	Unicolours - ≥ 450 Printed Décor - ≥ 410
3.2	**Resistance to immersion in Boiling water**	EN 438-2.12	%	Mass Increase - 2 ≤ T < 5 mm	≤ 2
			%	Mass Increase - T ≥ 5 mm	≤ 1
			%	Thickness Increase - 2 ≤ T < 5 mm	≤ 2
			%	Thickness Increase - T ≥ 5 mm	≤ 1.5
			Rating	Surface Rating - Gloss Finish	≥ 4
			Rating	Surface Rating - Other Finishes	≥ 5
			Rating	Edge Rating - Other Finishes	≥ 4
3.3	**Resistance to water vapour**	EN 438-2.14	Rating	Appearance - Gloss Finish	≥ 4
			Rating	Appearance - Other Finishes	≥ 4
3.4	**Resistance to Dry heat @160°C**	EN 438-2.16	Rating	Appearance - Gloss Finish	≥ 4
			Rating	Appearance - Other Finishes	≥ 4
3.5	**Dimensional stability at elevated temperature**	EN-438- 2.17	Longitudinal %	Cumulative dimensional change 2 ≤ T < 5 mm	≤ 0.40
			Transversal %		≤ 0.80
			Longitudinal %	Cumulative dimensional change T ≥ 5 mm	≤ 0.30
			Transversal %		≤ 0.60
3.6	**Resistance to impact by large diameter ball**	EN-438- 2.21	mm	2≤ 6mm - 1400mm	≥ 1500
			mm	T≥ 6mm - 1800mm	≥ 1900
3.7	**Resistance to crazing**	EN-438-2.24	Rating	Appearance	≥ 4
3.8	**Resistance to Scratching**	EN-438-2.25	Rating	Appearance - Smooth Finishes	≥ 3
			Rating	Appearance - Textured Finishes	≥ 3
3.9	**Resistance to Staining**	EN-438- 2.26	Rating	Appearance - Group 1 & 2	5
			Rating	Appearance - Group 3	5
3.10	**Light Fastness (Xenon Arc)**	EN-438-2.27	Degree	Contrast	5
3.11	**Flexural Modulus**	EN-ISO-178-2003	Mpa	Stress ≥ 9000	9000-11500
3.12	**Flexural Strength**	EN-ISO-178-2003	Mpa	Stress ≥ 80	≥ 120
3.13	**Tensile Strength**	EN-ISO-572-2-1996	Mpa	Stress ≥ 60	60-90
3.14	**Density**	EN-ISO 1183-1:2004	gm/cm^3	≥ 1.35	≥ 1.4
4	**FIRE PERFORMANCES**				
4.1	**Fire Reaction Classification - CGS**	EN 13501-1	**Test as per EN 13823 and EN ISO 11925-2 (Small-burner test)**		
			Rating	Classification for T ≥ 12 mm	C – s1, d0
			Rating	Classification for 6 ≤ T < 12 mm	D – s2, d0
5	**OTHER PROPERTIES**				
5.1	**Release of Formaldehyde**	EN-438-7.4.11.1	Rating	Classification	E1

Remarks

@ Required Values Based on EN-438 - 4 ISSUE-02:-Date:-12.03.2022