

TECHNICAL DATA

Boreal Compact Laminate
Solid Phenolic Partition Material



BOREAL

High Pressure Laminates (HPL), conforming to the specifications of EN 438-4:2016, are offered in both standard CGS and the flame-retardant CGF variants upon request. These laminates, when rendered self-supporting, are immediately prepared for the installation process.

Product Description

Compact Laminate is a sophisticated high-pressure solid composite material, meticulously designed for use in high-traffic commercial settings including washrooms, dining establishments, retail spaces, offices, healthcare facilities, and other general commercial areas. This composite is characterized by its extraordinary resilience to a multitude of challenges, including impacts, fire, chemicals, and stains, highlighting its robustness and enduring quality in diverse and demanding environments. Notably, the material is renowned for its antimicrobial and antibacterial characteristics, rendering it an excellent option for applications within healthcare environments where hygiene is paramount.

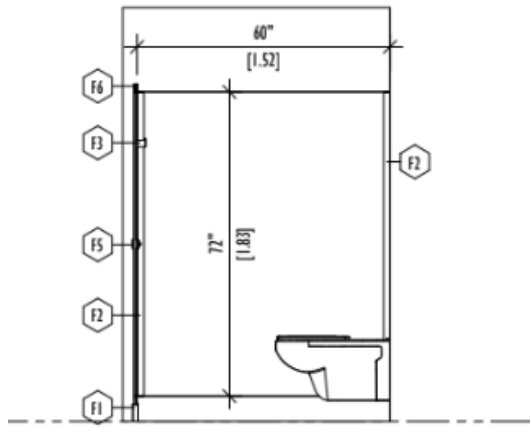
Details

- **Classic Grade Specifications**
 - *Composition:* Melamine surface, optimal for both vertical and horizontal applications including casework.
 - *Fire Rating:* Classified as Class B/2.
 - *Thickness Range:* Available: 3/4".
- **Fire-Rated Grade** – Fire retardant properties, required by building codes, e.g., elevator cabs, stairwells, and hospitals. Suitable for all segments within the transportation industry. Class A/ 1 Fire Rating. Thickness range - 3/4". Fire-Rated Compact Laminate is produced with a black center core, with a brown color line under the decorative layer.
- **Laboratory Grade** – Thick panels engineered to resist a variety of acids, solvents, general agents and cleaning agents.
- **Solid Phenolic Backer** – Non decorative material used for panels that require impact resistance. Thickness range- 3/4".
- **Product Composition** - Decorative surface papers impregnated with melamine resins are pressed over kraft paper core sheets impregnated with phenolic resin. These sheets are then bonded at pressures greater than 1000 pounds per square inch at temperatures approaching 300°F (149°C).
- **Basic Limitations** - Classic Grade, Fire-Rated and Laboratory Grade panels offer special protection for many washroom applications. These product types are designed for interior applications. However, no one material is suitable for all possible conditions; its properties should be checked for suitability under the specific conditions of each application. The information provided herein is not intended for or to guarantee specific properties.
- **Patterns & Colors** - See all patterns and colors at www.borealarchitectural.com. Please see the actual sample before specifying. Some Compact product types are available in limited designs only. Reference the chart on page 2.

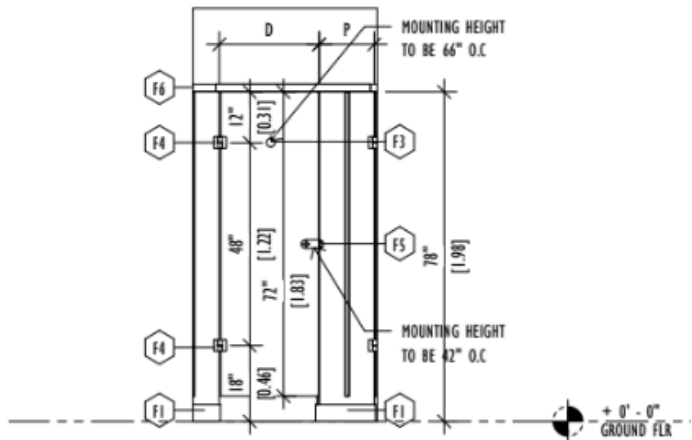


SR. NO.	PROPERTIES	TEST METHOD	ATTRIBUTES OF PERFORMANCE	UNIT OF MEASUREMENT	RESULTS (AS PER EN 438-4)
			EN-438 Laminate Classification		CGS/CGF
1	SURFACE QUALITY				
1.1	Surface quality	EN 438-2.4	Spots, dirt and similar surface defects	mm ² /m ²	≤ 1
			Fibres, hairs and scratches	mm/m ²	≤ 10
2	DIMENSIONAL 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	Rating	CGS - ≤ 6 , CGF - ≤ 9
			Thickness increase - T ≥ 5 mm	Rating	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	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

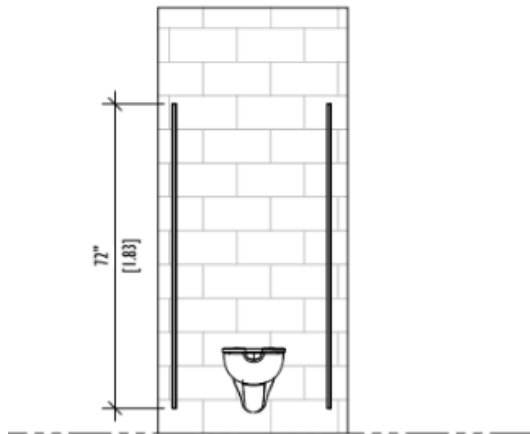
Technical Data Sheets
 Standard Privacy Elevations



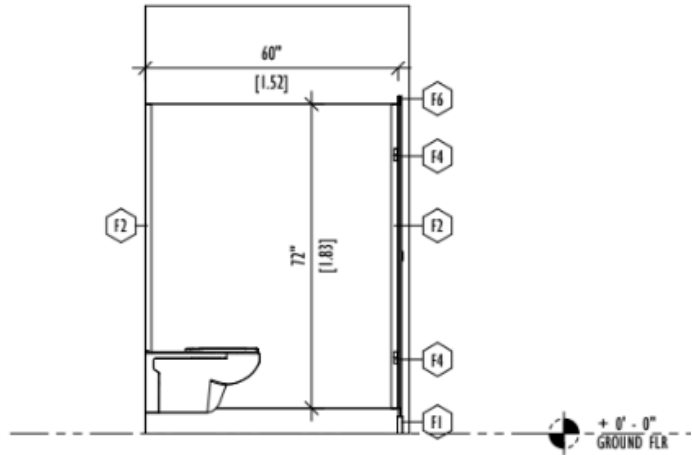
4
 AR.01 **STANDARD PRIVACY 4**
 Scale: 3/8" = 1'-0"



2
 AR.01 **STANDARD PRIVACY 2**
 Scale: 3/8" = 1'-0"

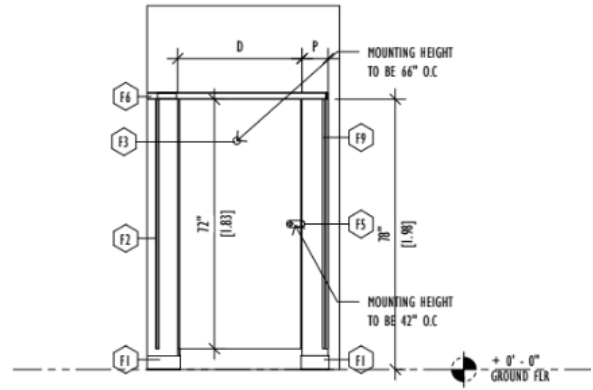


3
 AR.01 **STANDARD PRIVACY 3**
 Scale: 3/8" = 1'-0"

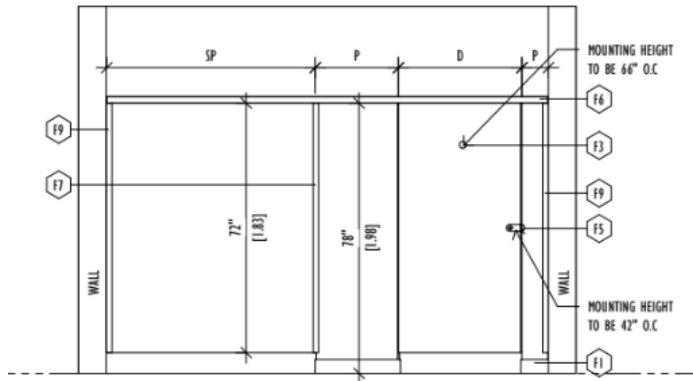


1
 AR.01 **STANDARD PRIVACY 1**
 Scale: 3/8" = 1'-0"

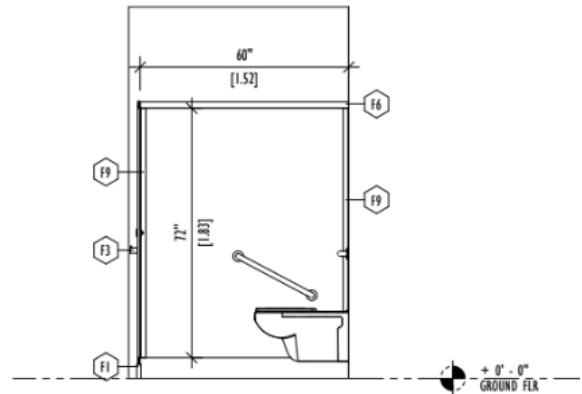
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2
 STANDARD PRIVACY (CORNER 2)
 Scale: 3/8" = 1'-0"



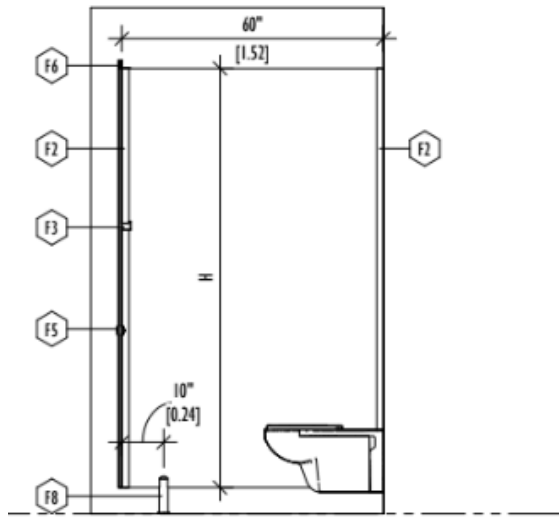
3
 STANDARD PRIVACY (ALCOVE)
 Scale: 3/8" = 1'-0"



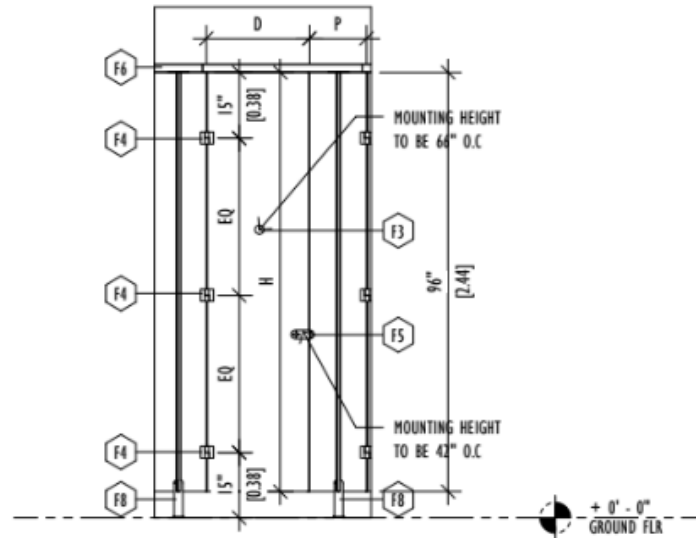
1
 STANDARD PRIVACY (CORNER 1)
 Scale: 3/8" = 1'-0"

Technical Data Sheets

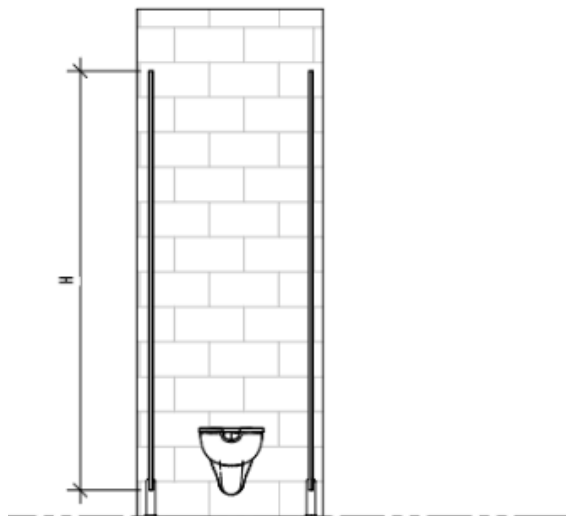
Full-Privacy Elevations



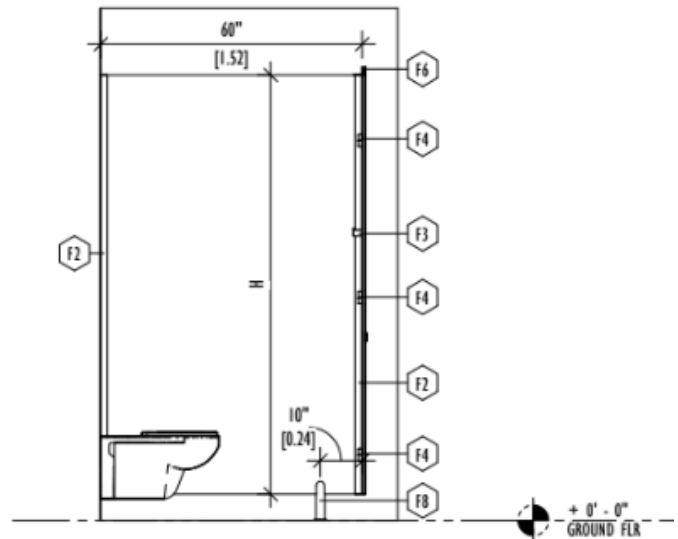
4
 AB.21
ULTIMATE PRIVACY - PEDESTAL 4
 Scale: 3/8" = 1'-0"



2
 AB.21
ULTIMATE PRIVACY - PEDESTAL 2
 Scale: 3/8" = 1'-0"



3
 AB.21
ULTIMATE PRIVACY - PEDESTAL 3
 Scale: 3/8" = 1'-0"



1
 AB.21
ULTIMATE PRIVACY - PEDESTAL 1
 Scale: 3/8" = 1'-0"

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