

## PRODUCT DATA SHEET

VIR VAULT (CGS / CGF)



### DESCRIPTION

VIR VAULT is a Compact Laminate designed especially for Interiors (Cubicles, partitions, lockers) available for both General purpose as well as Flame retardants. Vaults are constructed by infusing multiple layers of Phenolic Kraft papers and Décor paper with Melamine resin and protected by melamine impregnated Overlay film. This compact laminate is manufactured in compliance with EN-438-4, EN-13501-1.

Description: VIR VAULT

Laminate Grade 1: CGS (Compact General Purpose Standard)

Laminate Grade 2: CGF (Compact General Purpose Fire retardant)

Sizes: 1830x1830 mm, 1830x2165 mm, 1830x3660 mm, 1830x4330 mm

Thickness: 10 mm – 18 mm

### APPLICATION / APPLICATION AREA

As Cubicles, Partitions, Lockers for Office, Hotel, Airport, Public Space and Residence



## FIRE PERFORMANCE (ON DEMAND)

VAULT of CGF grade are specially engineered to comply with EN 13501-1 standards, ensuring exceptional resistance to fire.

All fire performance tests are conducted in accordance with EN 13823:2020 + A1:2022.

Reaction to Fire Classification: Classified as **Class B**, demonstrating excellent fire resistance with a Fire Growth Rate (**FIGRA**) of only **16.15 W/s** and a Total Heat Release (**THR<sub>600s</sub>**) of **4.42 MJ**.

Smoke Development: Rated **s1**, indicating minimal smoke emission. The Smoke Growth Rate (**SMOGRA**) is nil, and the Total Smoke Production (**TSP<sub>600s</sub>**) is just **29.11 m<sup>2</sup>**.

Flaming Droplets / Particles: Rated **d0**, confirming no flaming droplets or particles  $\geq 10$  seconds within the first 600 seconds of testing.

Parameter	Requirements of B-s1,d0 Class of EN 13501-1:2018	Observed Results	Conformity (Confirms / Do not Confirms)
<b>A. Single Burning Item Test</b>			
FIGRA0.2MJ (W/s)	$\leq 120$ W/s	16.15	Confirms
THR <sub>600s</sub> (MJ)	$\leq 7.5$ MJ	4.42	Confirms
SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	$\leq 30$ m <sup>2</sup> /s <sup>2</sup>	0	Confirms
TSP <sub>600s</sub>	$\leq 50$ m <sup>2</sup>	29.11	Confirms
LFS to edge	No LFS to edge	No	Confirms
Flaming Droplet / Particles $\geq 10$ s within the first 600 seconds	No	No	Confirms
<b>B. Ignitability Test</b>			
Flame to reach 150mm Mark	No Flame should reach 150mm mark	No Flame reached 150mm mark	Confirms

## REACTION TO FIRE CLASSIFICATION: B-s1, d0

## QUALITY CHARACTERISTICS / TECHNICAL DATA

VAULT of both General purpose and Flame- retardant (CGS/CGF) are classified under EN-438-4 and tested in accordance to EN-438-2 to verify their quality, durability, and safety.

PROPERTIES	TEST METHOD	ATTRIBUTES OF PERFORMANCE	UNIT OF MEASUREMENT	RESULTS (AS PER EN 438-4)
Resistance to Surface wear	EN 438-2.10	Wear Resistance - Initial point	Revolutions	Unicolours - $\geq 150$ Printed Décor - $\geq 125$
Resistance to immersin in boiling water	EN 438-2.12	Mass increase - $2 \leq T < 5$ mm Mass increases - $T \geq 5$ mm Thickness increase - $2 \leq T < 5$ mm Thickness increases - $T \geq 5$ mm Appearcne - Gloss finish Appearcne - Other finish	% % Rating Rating Rating	CGS - $\leq 5$ , CGF - $\leq 7$ CGS - $\leq 2$ , CGF - $\leq 3$ CGS - $\leq 6$ , CGF - $\leq 9$ CGS - $\leq 7$ , CGF - $\leq 6$ $\geq 3$ $\geq 4$
Resistance to water vapour	EN 438-2.14	Appearcne - Gloss finish Appearcne - Other finish	Rating Rating	$\geq 3$ $\geq 4$
Resistance to dry heat ( $160^\circ$ )	EN 438-2.16	Appearcne - Gloss finish Appearcne - Other finish	Rating Rating	$\geq 3$ $\geq 4$
Dimensional stability at elevated temperatures	EN 438-2.17	Cumulative dimensional change - $2 \leq T \leq 5$ mm Cumulative dimensional change - $T \geq 5$ mm	L % T % L % T %	$\leq 0.40$ $\leq 0.80$ $\leq 0.30$ $\leq 0.60$
Resistance to impact with large diameter ball	EN 438-2.21	Indent. Dia. 10mm $2 \leq T < 6$ mm - Drop Indent. Dia. 10mm $T \geq 6$ mm - Drop height	mm mm	$\geq 1400$ $\geq 1800$
Resistance to Crazing	EN 438-2.24	Appearance	Rating	$\geq 4$
Resistance to Scratching	EN 438-2.25	Appearance - Smooth Finishes Appearance - Textured Finishes	Rating Rating	$\geq 2$ $\geq 3$
Resistance to Staining	EN 438-2.26	Appearance - Group 1 &2 Appearance - Gropu 3	Rating Rating	$\geq 5$ $\geq 4$
Light Fastness (Xenon arc)	EN 438-2.27	Contrast	Grey scale rating	4 to 5
Flexural modulus	EN ISO 178	Stress	Mpa	$\geq 9000$
Flexural strength	EN ISO 178	Stress	Mpa	$\geq 80$
Density	EN ISO1183	Density	gm/cm <sup>3</sup>	$\geq 1.35$

## SURFACE FINISH

The surface finish test is conducted in accordance with EN 13722 to evaluate the angle of light reflection for each surface finish. The results are expressed in gloss units (GU), providing a precise measure of the reflective characteristics.

SURFACE	MAXIMUM DEVIATION	GLOSS UNITS
High Gloss Surface	± 15	> 70
Semi-Gloss Surface	± 10	30 - 70
Suede Surface	± 5	10 - 30
Matt surface	± 3	< 10

## TOLERANCES

NOMINAL THICKNESS (mm)	THICKNESS TOLERANCE (mm)	LENGTH TOLERANCE (mm)	WIDTH TOLERANCE (mm)
2-3	±0.2	+10/-0	+10/-0
3-5	±0.3	+10/-0	+10/-0
5-8	±0.4	+10/-0	+10/-0
8-12	±0.5	+10/-0	+10/-0
12-16	±0.6	+10/-0	+10/-0
16-20	±0.7	+10/-0	+10/-0
20-25	±0.8	+10/-0	+10/-0



**EPH**  
 SUCCESS BY QUALITY  
 EN 438-2



ISO 9001 : 2015  
 ISO 14001 : 2015  
 ISO 45001 : 2018



EN 13823:2010  
 EN ISO 11925-2:2010



National Electrical Manufacturers Association

European Standard  
**EN 438**