

CHEMICAL RESISTANT COMPACT BOARD_LABSHIELD

S. NO.	PROPERTIES	UNIT	TEST METHODAS PER EN 438 Part2 & 4: 2016	SPECIFIED VALUES	TYPICAL VIRGO RESULTS
1	CLASSIFICATION		EN438-4	COMPACT GENERAL PURPOSE Standard, CGS	
	Surface Coating		CHEMICAL RESISTANT / LABSHIELD OR LAB GRADE		
			Available in Black and Brown Colour Cores. Unicore optional.		
	Size Offered	mm	1525mm x 3660mm		
2	Surface Quality	mm ² /m ²	EN 438-4, 6.2.4.2	1.0 (max.)	No Defects
3	Fibers, Hairs & Scratches	mm/m ²		10.0 (max.)	No Defects
4	Thickness & Maximum Variation	mm	EN 438-2- 5	16.0 ≤ t < 20.0mm : ± 0.70 mm	16.0 ≤ t < 20.0mm : ± 0.36
				20.0 ≤ t < 25.0mm : ± 0.80 mm	20.0 ≤ t < 25.0mm : ± 0.42
				25 ≤ T : ± 1.30	25 ≤ T : ± 1.00
5	Length & Width	mm	EN 438-2- 6	+10mm /-0mm	+5mm /-0mm
6	Flatness	mm/M	EN 438-2- 9	5.0 (max.)	3.0
7	Edges Straightness	mm/M	EN 438-2- 7	1.5 (max.)	≤ 0.50
8	Edges Squareness	mm/M	EN 438-2- 8	1.5 (max.)	≤ 0.50
9	Resistance to Dry Heat at 160° C	Rating	EN 438-2-16	4 (min.)	5
10	Resistance to Surface Wear	Rev.	EN 438-2-10	350 (min.)	450 (min.)
11	Resistance to Water Vapour, Appearance	Rating	EN 438-2-14	4 (min.)	5
12	Resistance to Immersion in Boiling Water (2 hours)		EN 438-2-12		
	a) Mass Increase	%		2.0 (max.)	0.65
	b) Thickness Increase	%		2.0 (max.)	0.72
	c) Surface appearance	Rating		4 (min.)	5
	d) Edge appearance			4 (min.)	4
13	Dimensional Stability at Elevated Temperature		EN 438-2-17		
	a) Longitudinal	%		0.30(max)	0.18
	b) Transverse	%		0.60(max)	0.38
14	Resistance to Impact by Large Diameter Ball		EN 438-2-21		
	a) Drop Height	mm		1800	2000
	b) Diameter of Indentation	mm		10(max.)	6
15	Resistance to Scratching, Force	Rating	EN 438-2-25	3(min)	4.5
16	Resistance to Staining Group 1 & 2	Rating	EN 438-2-26	5	5
	Group 3			4	≥ 4
	Chemical & Stain Résistance	Rating	SEFA 3-2020 Clause 2.1.1	Not more than rating 3 against 4 Chemicals	Complies
	17	Resistance to Wet Heat (100°C), Appearance	Rating	EN 438-2-18	4 (min.)
18	Resistance to Crazing, Appearance	Rating	EN458-2-24	4 (min.)	5
19	Flexural Modulus	Mpa	EN ISO 178:2003	9000 (min.)	11000
20	Flexural Strength	Mpa	EN ISO 178:2003	80 (min.)	100
21	Tensile Strength	Mpa	EN ISO 527-2:1996	-	
22	Light Fastness (Xenon Arc), Grey Scale	Rating	EN 438-2-27	4 to 5	Complies
23	Density	gm/cm ³	EN ISO 1183-1:2004	1.4 ± 0.05	1.4 ± 0.05
24	Resistance to fixing (Screw pull out strength) - 8.0mm thick board	N	ISO 13894-1:9	3000 (min.)	>3000
	- 10.0mm thick board &			4000 (min.)	>4000
25	Thermal Conductivity / Resistance	W/m*K	EN-12524:2000, EN-12664:2001	-	0.24
26	Release of Formaldehyde		EN-717-2:2006 ISO 12460-3 EN-717-2:2006	E1	E1
27	Reaction to Fire (Tested according to BS EN 13501-1:2007)*	Euroclass	BS EN 13501-1:2007	B-S1, d0	B-S1, d0

VIRGO Lab grade or Chemical resistant laminates surface is best suitable for stains caused by:

General Purpose Chemicals, Bio Medical reagents, Biological Spills & Wastes, Petro Chemicals Products, Food Items and edible oils, All beverages, Diary Products

Note: Whereas Virgo 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.



Corp. Office: Unit - 1205-07A, 13th Floor, Tower B
Westgate, S.G. Highway, (Near YMCA Club)
Ahmedabad, Gujarat - 380015 INDIA

Factory: Block/Survey No 342/1, 345, 347 & 349
Village Sokhda, TA-MATAR, Kheda,
Gujarat-387570

(M) +91-9117 666666
(E) info@virgoipl.com
(W) www.virgoiplworld.com

24 Hour Chemical Spot Test As Per SEFA 3-2020**Glamiva Labshield Chemical Spot Test - Test Protocol: SEFA 3-2020 Clause 2.1.1****Volatile Chemicals**

Test No.	Chemical (% by Vol.)	Method	Rating	Comments
1	Acetate, Amyl	A	0	No Effect
2	Acetate, Ethyl	A	0	No Effect
3	Acetone	A	0	No Effect
4	Alcohol, Butyl	A	0	No Effect
5	Alcohol, Ethyl	A	0	No Effect
6	Alcohol, Methyl	A	0	No Effect
7	Benzene	A	0	No Effect
8	Carbon Tetrachloride	A	0	No Effect
9	Chloroform	A	0	No Effect
10	Cresol	A	0	No Effect
11	Dichloroacetic Acid	A	0	No Effect
12	Dimethylformamide	A	0	No Effect
13	Dioxane	A	0	No Effect
14	Ethyl Ether	A	0	No Effect
15	Formaldehyde, 37%	A	0	No Effect
16	Furfural	A	0-1	No Effect
17	Gasoline	A	0	No Effect
18	Methyl Ethyl Ketone	A	0	No Effect
19	Methylene Chloride	A	0	No Effect
20	Monochlorobenzene	A	0	No Effect
21	Napthalene	A	0	No Effect
22	Phenol, 90%	A	0	No Effect
23	Toluene	A	0	No Effect
24	Trichloroethylene	A	0	No Effect
25	Xylene	A	0	No Effect

Non-volatile Chemicals

Test No.	Chemical (% by Vol.)	Method	Rating	Comments
26	Acetic Acid, 98%	B	0	No Effect
27	Acid Dichromate, 5%	B	0	No Effect
28	Ammonium Hydroxide, 28%	B	0	No Effect
29	Chromic Acid, 60%	B	0	No Effect
30	Formic Acid, 90%	B	0	No Effect
31	Hydrochloric Acid, 37%	B	0	No Effect
32	Hydrofluoric Acid, 48%	B	0	No Effect
33	Hydrogen Peroxide, 30%	B	0	No Effect
34	Iodine, Tincture of	B	0	No Effect
35	Nitric Acid, 20%	B	0	No Effect
36	Nitric Acid, 30%	B	0	No Effect
37	Nitric Acid, 70%	B	0-1	Excellent
38	Phosphoric Acid, 85%	B	0	No Effect
39	Silver Nitrate, Saturated	B	0	No Effect
40	Sodium Hydroxide, 10%	B	0	No Effect
41	Sodium Hydroxide, 20%	B	0	No Effect
42	Sodium Hydroxide, 40%	B	0	No Effect
43	Sodium Hydroxide, Flake	B	0	No Effect
44	Sodium Sulfide, Saturated	B	0	No Effect
45	Sulfuric Acid, 33%	B	0	No Effect
46	Sulfuric Acid, 77%	B	0-1	Excellent
47	Sulfuric Acid, 96%	B	0-1	Excellent
48	Sulfuric Acid, 77% and Nitric Acid 70%, equal parts	B	0-1	Excellent
49	Zinc Chloride, Saturated	B	0	No Effect

Ratings:

Level 0 - No Effect - No detectable change in the material surface.

Level 1 - Excellent – Slight detectable change in color or gloss but no change in function or life of the surface.

Level 2 - Good – A clearly discernible change in color or gloss but no significant impairment of surface life or function.

Level 3 - Fair – Objectionable change in appearance due to discoloration or etch, possibly resulting in deterioration of function over an extended period of time.

Notes:

- Staining agents and contact times were as required by SEFA 3-2020.

Pass with no more than four (4) Level 3 conditions for all 49 reagents (A + B).

Glamiva Labshield product have been tested for the requirement of the 24-Hour Chemical Spot Test, SEFA 3-2020.

All the chemical 49 reagents have passed the requirement.