







Certification

Vir Exterior Grade Compact Panel Certificates & Awards Recognition.







Test Report No. 7191166866-MEC17/4-YWA dated 21 Sep 2017

This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the all Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the



Large scale surface spread of flame test on Brand: "VIR", Model: "Type-EDF/EDS/EGF/EGS" High-pressure decorative laminates (HPL) Exterior grade compact panel material submitted by Rushil Decor Limited on 23 Aug 2017.

TESTED FOR:

Rushil Decor Limited Near Nilkanth Green Villa Off. Sindhu Bhavan Road Shilaj, Ahmedabad 380058 Gujarat

DATE OF TEST:

30 Aug 2017

PURPOSE OF TEST:

To determine the tendency of the surface of a material or a combination of materials to support the spread of flame across its surface and to classify the surface according to the test given in British Standard 476: Part 7: 1997.

The test was conducted at TÜV SÜD PSB's fire test laboratory located at No. 10 Tuas Avenue 10, Singapore 639134.









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Classification of Surface Spread of Flame

Classification	Spread	d of flame at 1.5 min.	Final spread of flame		
	Limit (mm)	Limit for one specimen in sample (mm)	Limit (mm)	Limit for one specimen in sample (mm)	
Class 1	165	165 + 25	165	165 + 25	
Class 2	215	215 + 25	455	455 + 45	
Class 3	265	265 + 25	710	710 + 75	
Class 4		Exceeding the limits for class 3			

CONCLUSION:

In accordance with the class definitions specified in the Standard, the test results show that the sample tested has a $\underline{\text{Class One}}$ Surface Spread of Flame.

REMARKS:

The test results relate only to the behaviour of the test specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.



(3) Test Report No. 7191155566-MEC17/6-YWA dated 26 Sep 2017 0 Twenty pieces of apactmen and to be 'Brand' 'V-R' Model' Type-EDF-EDS-EOF-EOS' (from thick x 1.4%)/cm'). High-pressure decoration terminates (HPL). Exhibiting golds compared serial material comparing of Acrylic Frien Layer for UV protection. A Medianine Resist Treated in Treated in Treated Medianine Resist Treated Player Frien Layer for UV protection, each of mornish at size of EDS-en x 1.5mm were sealmette. The Adheditive Lood new seal to be Presided. Resist and Melaninin floarie for Krist Paper and Design Reper Treating, respectives. The ERE Editation used was seal to be their Halloger, Principlescottisms. The bulk density of the spectimen was found to be approximately 14004(g/m). RESULTS: Northern spectrum wood CONCLUSION In accordance with the citerion stated in the UL 54 1997 - 20mm Vertical Burning Text, the fact results show that the sample tested good the requirements by ULS4 1967 V-0 describation

Classification Report No. 7191166866-MEC17/3-LGJ dated 22 Sep 2017



4. Classification and field of application

4.1. Reference of classification

This classification has been carried out in accordance with clause 11 of BS EN 13501-1: 2007 +A1: 2009.

4.2. Classification

The product, 'VIR' exterior grade compact panel (6mm thick, 1.45 g/cm³), in relation to its reaction to fire behaviour meets the requirements to be classified as ${\bf B}$.

The additional classification in relation to smoke production is: s1

The additional classification in relation to flaming droplets / particles is: $\ensuremath{\mathbf{d0}}$

Fire behaviour	Smoke production		-)	Flaming droplets		
В	s	SUD	, ,	d	0	

Therefore, the classification of VIR' exterior grade compact panel (6mm thick, 1.45 g/cm³), in accordance with BS EN 13501-1: 2007 +A1:2009 is:

Reaction to fire classification: B-s1,d0

Vik Ng



Why use Vir Exterior Grade Compact Panel?

1. UV Resistance

- Special UV protective film which is providing extra resistance to UV rays which are dwindling on the surface of Vir Exterior Grade Compact Panel. In combination with pure UV irradiation, our product is applied for condensation or water spray exposure. This type of test is normally used for initial screening to choose the best material.
- The discoloration of surface is prevented due to protective layers, which indirectly prevents fading of decorative design surface.
- Vir Exterior Grade Compact Panel complies with stringent testing as per European standard confirming to EN-438-6-28 for 1500 Hrs.

2. Artificial Weathering

- The weather testing process can be greatly accelerated through the use of specially designed weathering chambers. While this speeds up the time needed to get results.
- Product is subjected for testing in an advanced climate test facility from which, we can simulate any weather condition, whether natural conditions such as sunlight, salt mist, temperatures, rain, and combined exposures, or man-made conditions such as air pollution, chemicals, and extreme temperatures hence our product meeting variant weathering conditions requirements.
- Vir Exterior Grade Compact Panel is tested for artificial weathering test with different environmental conditions. It complies to EN-438-6-27 & 29 with an appearance rating > 4.

3. Resistance to Climatic Shock.

- During a product's lifetime, it can be exposed to various climates anywhere around the world completely beyond your control or influence. Vir Exterior Grade Compact panels complies with stringent testing as per European standard confirming to EN-438-6-9. With good flexural strength & flexural modulus.
- Using specially tailored climate tests and test scenarios we help our customers to improve the robustness and reliability of our product not just to comply with applicable design and performance standards, but also to fulfill consumer expectations.

4. Dimensional stability at Elevated Temperature.

Vir Exterior Grade Compact Panel is dimensionally stable under various extreme climatic conditions of temperature & humidity. It confirms to EN-438-6-17 the test performed for its evaluation at an extreme range of relative humidity at elevated temperature.

Mechanical Properties of VIR exterior panel.

- **5. Panel Elasticity properties** meet ISO-178, values achieved > 9000 Mpa which justify its strength & bending properties. Panel is not easily deformed elastically whenever external force is applied.
- **6. Flexural Strength:** The flexural strength represents the highest stress experienced within the material at its moment of yield. It is measured in terms of stress or its stress load-bearing capacity which is observed to be more than 90 Mpa.





- **7. Tensile Strength:** Ultimate tensile strength is measured by the maximum stress that a material can withstand while being stretched or pulled before breaking, Vir Compact Panel tends to achieve more than 70 Mpa when tested as per EN-ISO-527-2.
- 8. Density of Panel: Min 1.45 gram/cm³.

FIRE PERFORMANCE OF VIR EXTERIOR GRADE COMPACT (FR GRADE) PANEL.

9. Reaction to Fire:

- 1. An EU classification serves as the standard of evaluation for the reaction to fire of construction and building materials. It establishes uniform Europe-wide requirements for fire protection in order to facilitate the unrestricted trade of construction products throughout Europe. In the EN 13501 Part 1 series of standards, the reaction to fire of construction and building materials is divided into several classes (Euro class A1, A2 and B through F). Evidence is provided in the form of a fire test conducted on the complete building element with a corresponding test certificate according to EN 13501 Part 2.
- 2. Our Vir Exterior Grade Compact Panel complies with reaction to fire and is classified as Flame retardant classification, B, S2, D0. Our product meets the European standard requirements for building materials category. Key characteristics for the assessment of reaction to fire are:
- Inflammability Combustibility Flame propagation Smoke development Dropping while burning.

CLASS	TEST PROCEDURE	CLASSIFICATION CRITERIA
В	EN-13823	FIGRA ≤ 120 W/s and LFS < edge of the specimen and THR600 s ≤ 7.5 MJ
В	EN ISO 11925-2 load = 30 s	Fs ≤ 150 mm (5.91") within 60 s

Spread of Flame:

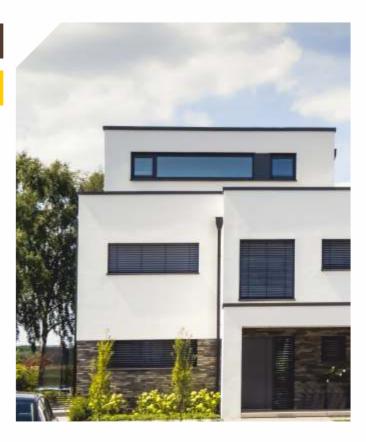
FLAME EXPOSURE » 30 KW; THE SBI TEST MEASURES:

• The release of energy (THR – total heat release) • The spread of flames (LFS – longitudinal flame spread) • The speed at which the fire spreads (FIGRA – fire growth rate) • Smoke development (SMOGRA – smoke growth rate) • Dripping / dropping while burning

Vir Exterior Grade Compact Panel (FR GRADE) complies to Class -1 when tested for spread of flame.

Special Features & advantages of using Vir Exterior Grade Compact Panel.

- 1. Waterproof against rain, frost, snowfall.
- 2. Act as sound barrier.
- 3. Solvent resistant
- 4. Resistance to Impact.
- 5. Lesser Time & Easy to Install at site
- 6. Enhanced Light fastness
- 7. Cleaning is Easy
- 8. Protect wall surface from external heat, hence reduced thermal conductivity rate.
- 9. Both side special UV protective Acrylic film, prevents decorative surface from fading effect.
- 10. Panel can be used for both vertical & horizontal panel alignment.
- 11. Surface with Anti-graffiti property.
- 12. 100 % corrosion free product.
- 13. High stability in variant Environment across globe.







2 Easy and Quick Schematics to install VIR Ext-Lam.



ADHESIVE



This uses a 3M adhesive to fix the panel. It gives a clean look and is relatively cheaper.



RIVETED



It uses a PU coated rivet and is a more trusted and extensively tested method. It makes the panel strong and durable.





WARRANTY FOR EXT-LAM

10 YEARS WARRANTY

Rushil Décor Ltd product offering Exterior grade compact panel endorses & confirm to EN-438-6 provided for a Limited warranty period of 10 Years.

This warranty covers on products for any Delamination in panel.

Slight loss of brightness or homogeneous variation in color occurring during course of time in use is acceptable as per EN-438-6 Std.

The warranty is evoked with immediate effect on the sale of the products to the first consumers, purchaser whose name & details are mentioned in the invoice. The warranty on our products is non-transferable. These terms of warranty shall be deemed to have accepted upon purchase of product by first consumer purchaser

Our warranty shall not cover any damage or deviation from the Std 438-6 upon normal wear and tear or in the event products are spoiled as a result of miss use, mishandling, neglect, accident, improper application, extreme temperature, improper fabrication leading to deformation, installation, improper maintenance. This warranty shall be void subject to other terms & conditions contained herein, upon non production of the original warranty documents.

Rushil Decor shall have the sole & absolute right to determine the reason for such damage or deviation. We shall have the right to inspect our supplied any products claimed as a defective product at the buyer's premises, or require the buyer to return the product to us only if such products are proven to be defective and not confirming to std EN-438-6, as covered by this warranty. And are returned within the warranty period stated above. In case of any claims, quarrels the obligation of Rushil Decor Ltd. to purchaser/buyer under this warranty is however limited to the repair/servicing/replace of the unit only, when the product is returned back to retailer upon forwarding original warranty documents with invoice copy.

Our Authorized dealers are our mutual partner in supporting the warranty requests. The company Rushil Décor Ltd. shall not entertain any direct claim/service.

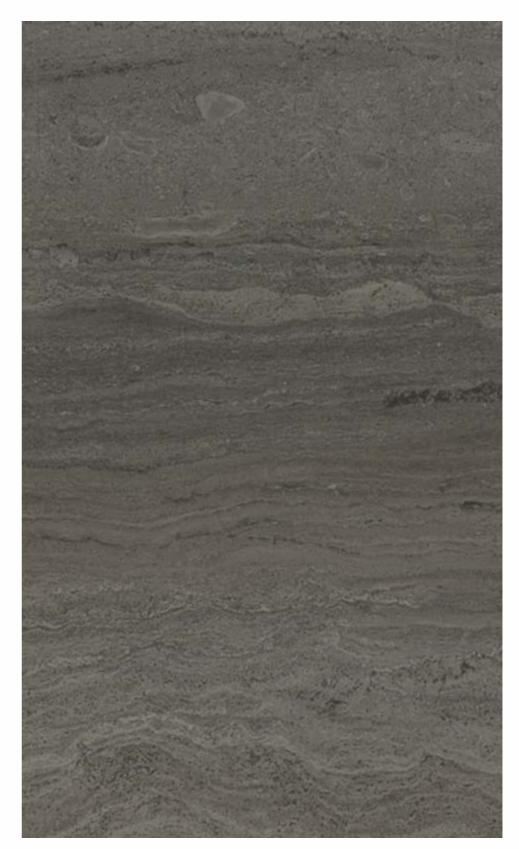
To obtain service under this warranty, please contact our authorized Dealers.

- * The jurisdiction in respect of this warranty or incidental matters thereof shall be exclusively at Ahmedabad only.
- **Slight Deformation / Warping is excluded for modified/customize/Altered Product offerings under this warranty.

EXTERIOR CLADDING EXOTIC DESIGNS







EXT-SF 8697 NEW

Travertin Light

EXT-SF 8698 NEW

Travertin Dark



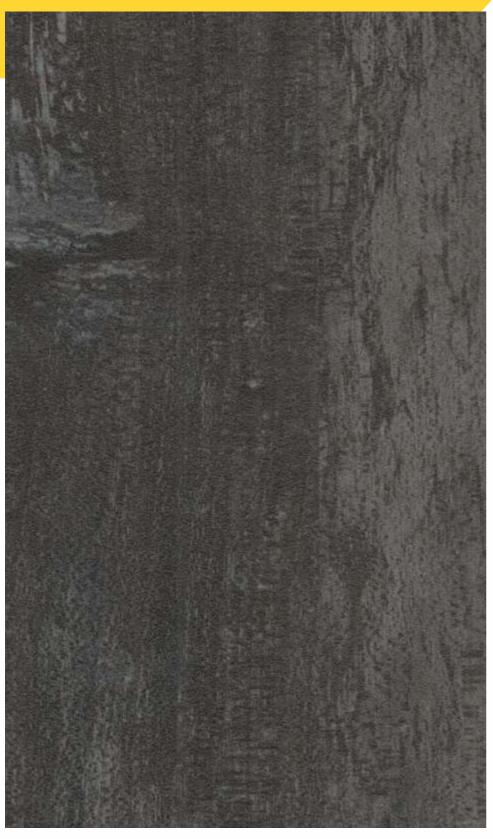




EXT-SF 8569 Kamala EXT-SF 8582 Bonito

EXTERIOR CLADDING EXOTIC DESIGNS





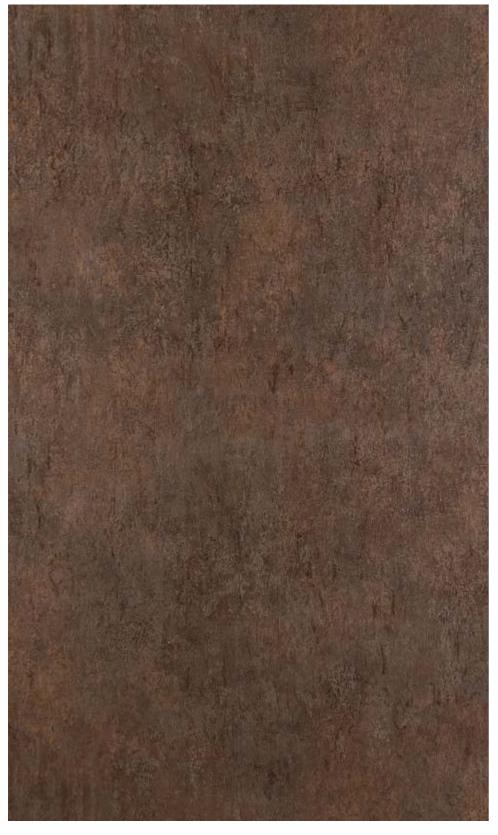


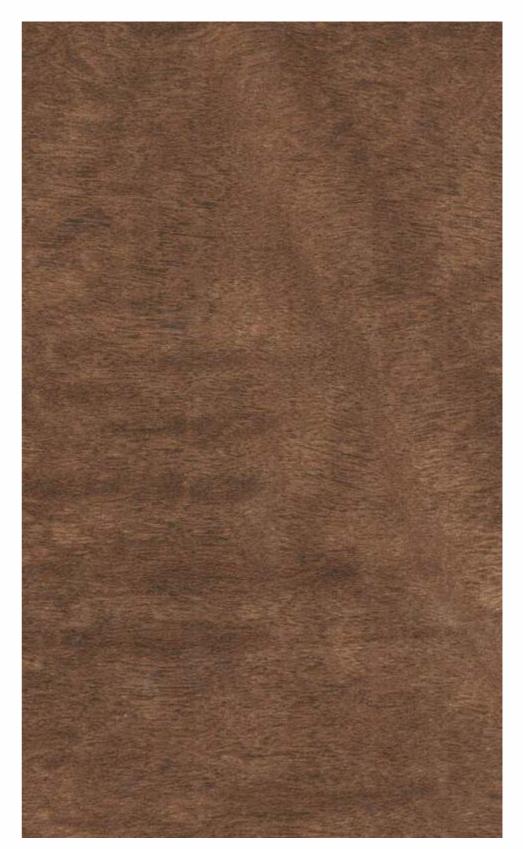
EXT-SF 8631 Frost Wood

EXT-SF 7751 NEW

Classic Stone







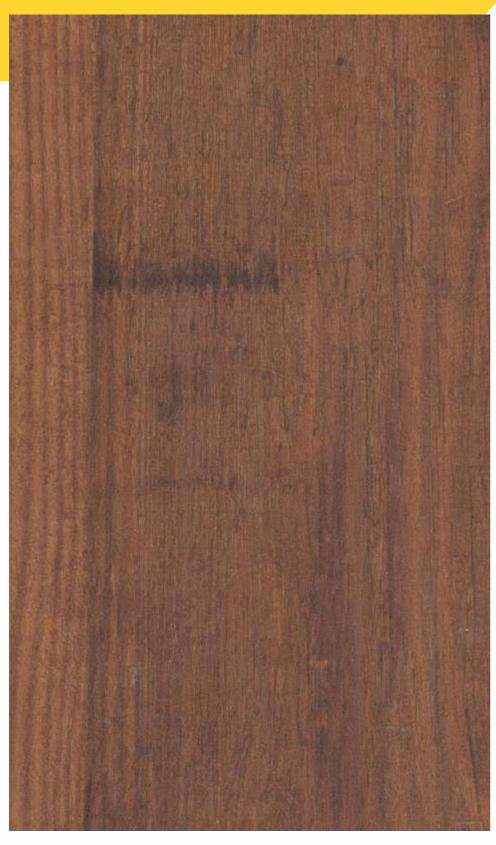
EXT-SF 3100 Paris Brown E

EXT-SF 8629 Khaya Mahogany Dark

EXTERIOR CLADDING

WOOD GRAINS



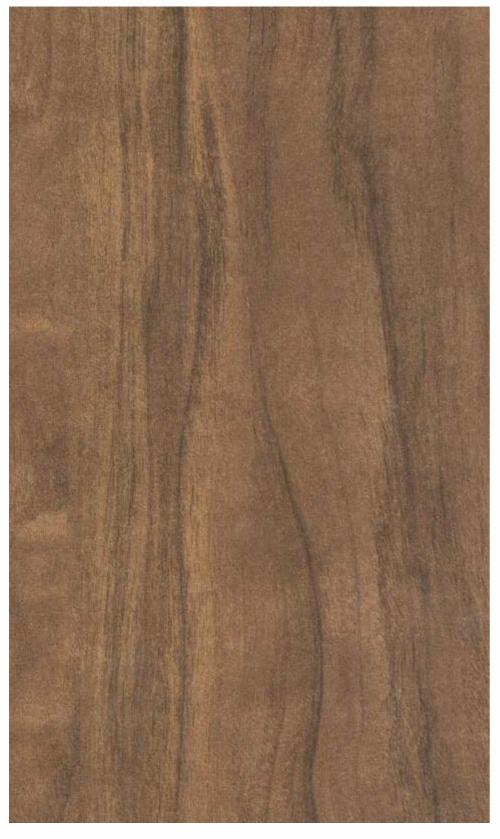




EXT-SF 8627 Novecento Pine

EXT-SF 8626 Columbia Walnut







EXT-SF 8632 Rosenhol Wood EX

EXT-SF 8752 NEW Natural Walnut

EXTERIOR WOOD GRAINS







EXT-SF 8150 NEW Santafe Wood

Vintage Pine Dark EXT-SF 8586







EXT-SF 9137 Nogalino EXT-SF 4136 Wenge Teak

EXTERIOR CLADDING

WOOD GRAINS





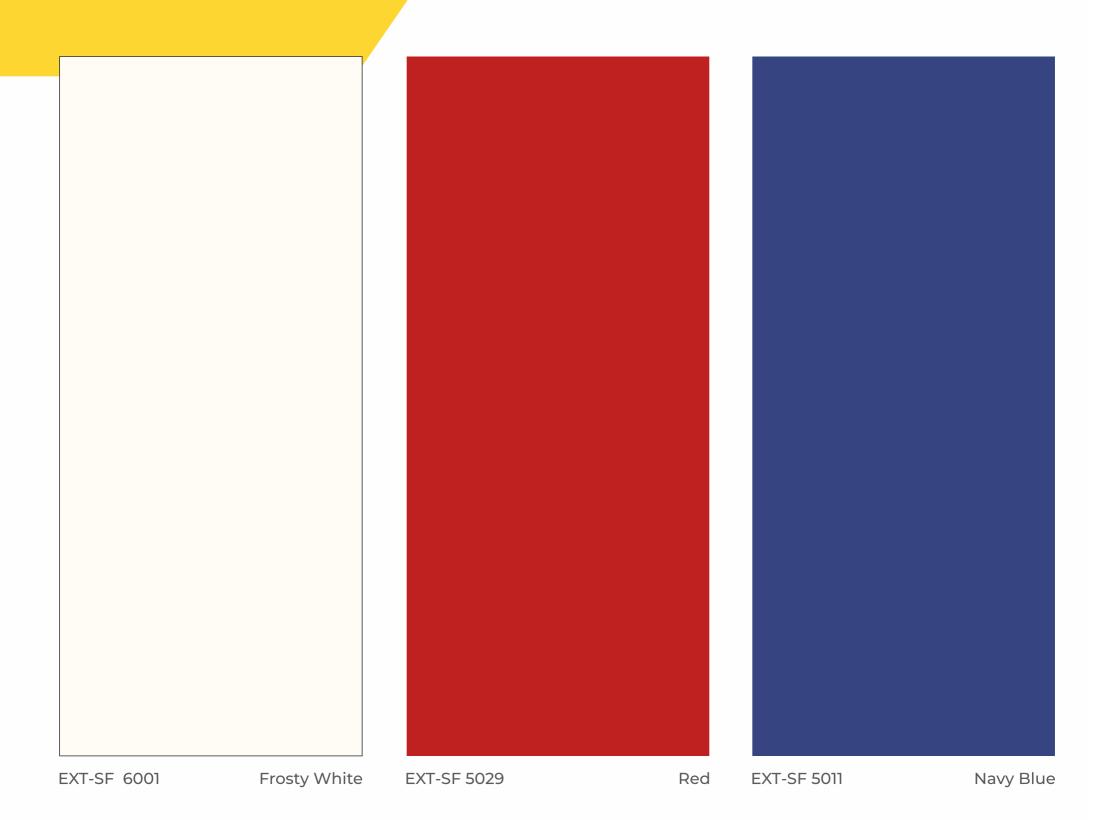


Kitami Dark









TECHNICAL SPECIFICATION

TECHNICAL PROPERTIES VIR EXTERIOR GRADE COMPACT LAMINATE

	PROPERTIES TEST METHOD AS UNIT OF SPECIFIED VALUES AS					VIR EXTERIOR GRADE
	PROPERTIES	PER DIN EN 438-2 : 2016 EN 438-6 : 2016	MEASUREMENT	PER BS EN 438- 6:	2016	COMPACT VALUE
		Classification		EGS / EDS / EGF / EDF		
	Dimensional Tolerances of Panel			Size (2440 x 1220)) mm	
			mm	5.0 ≤ t < 8.0 mm : max ± 0.4		±0.30
1	Thickness	EN 438-2:5	mm	8.0 ≤ t < 12.0 mm : ma	x ± 0.5	±0.40
			mm	12.0 ≤ t 16.0 mm : ma	x ± 0.6	±0.50
2	Flatness of Panel	EN 438-2 : 9	mm/m	For 2.0 ≤ t < 6.0 mm : max	8.0 mm/m	3.0
2	Flatiless of Failer	EIN 430-2.3	mm/m	For 6.0 ≤ t < 10.0 mm : max	x 5.0 mm/m	2.0
3	Length & Width of Panel	EN 438-2 : 6	mm	+10 mm/-o		+5.0-00
4	Straightness of Edges	EN 438-2 : 7	mm/m	1.5 mm/m max devi	ation	≤ 1.2
5	Squareness	EN 438-2 : 8	mm/m	1.5 mm/m max deviation (calculation based on Length of panel)		≤ 1.5
	Resistance to Impact by Large D	iameter Ball (Shatter Resistar	nce)			
6	Drop Height	EN 438-2-21	mm	1800 mm (Drop Height) 10 (max)		2200
7	Diameter of Indentation	EIN 430-2-21	mm			0.3
8	Dimensional Stability at Elevated Temperature			0.30 (max.)		
9	a) Longitudinal	EN 438-2-17	%			0.16
10	b) Transverse		%	0.60 (max.)		0.32
11	Daniel Guefana Maileilia	EN 438-2 :4	(Dirt, spots, any similar surface defects).	≤ 2 mm²/m² ≤ 20 mm/m²		Complies
"	Panel Surface Visibility	EN 430-2.4	Fibre, hair, scratches similar surface defects			Complies
	MECHANICAL PROPE	RTIES				RIOR GRADE ACT VALUE
12	Flexural Modulus (Stress)	EN ISO 178 : 2003	Мра			10500
13	Flexural Strength (Stress)	EN ISO 178 : 2003	Мра	80(min.)		105
14	Tensile Strength (Stress)	EN ISO 527-2 : 1996	Мра	60(min.)		70
15	Density	EN ISO 1183-1 : 2004	g/cm³	1.35(min.) 1.4		40 ± 0.05
		EN 438-2 : 15	% max in 8 mass increase			0.8
16	Resistance to wet conditions	Surface	Appearance (min)	4		5
		Edge Appearance (min) 3			5	

TECHNICAL SPECIFICATION



LIGHT FASTNESS AND WEATHER RESISTANCE

	PROPERTIES	TEST METHOD AS PER DIN EN 438-2 : 2016	UNIT	SPECIFIED VALUES AS PER BS EN 438- 6 : 2016	VIR EXTERIOR GRADE COMPACT VALUE
17	Resistance to artificial weathering including light fastness	EN 438-2-29 (Contrast)	Rating	Grey scale Rating not worse than 3 after 650 MJ/M² Radiant exposure	>4
		EN 438-2-29 (Appearance)	Rating	Rating minimum 4 after 650 MJ/M² Radiant exposure	5
18	Posistanco to LIVI ight	EN 438-2-28 (Contrast)	Rating	Grey scale Rating not worse than 3 after 1500 hours exposure	>4
10	Resistance to UV Light	EN 438-2-28 (Appearance)	Rating	Rating minimum 4 after 1500 hours exposure	5
19	Resistance to Climatic shock	EN 438-2 : 19	Flexural Strength Index (min)	0.8	0.98
		EN 438-2 : 19	Flexural Modulus Index (min)	0.8	0.95
		EN 438-2 : 19	Rating(min)	4	5
20	Thermal Conductivity	EN 12664-2001	W/m.k	0.3	0.31
21	Durability Test, Resistance to Immersion In Boiling Water	EN 438-7-2005			
а	Mass Increase %	EN 438-7-2005	% Max	2	0.34
þ	Thickness Increase %	EN 438-2 : 2016	% Max	2	0.21
С	Surface Rating Scale	EN 438-2 : 2016	Min	4	5

FIRE PERFOMANCE PROPERTIES

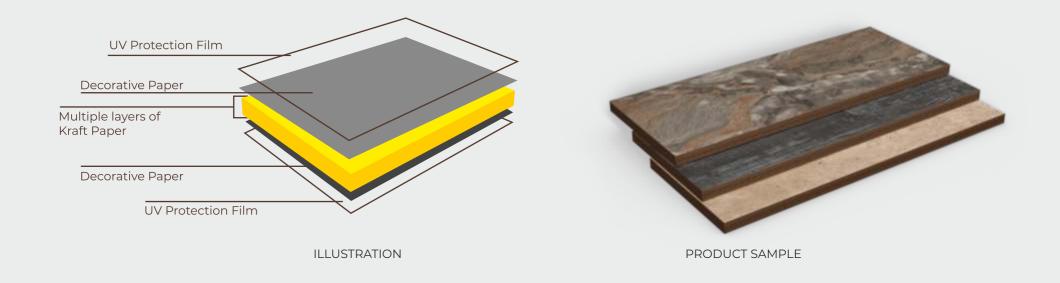
	PROPERTIES		UNIT	SPECIFIED VALUES AS PER BSEN 438-6 : 2016	VIR EXTERIOR GRADE COMPACT VALUE
1	Reaction to fire	Classification standards EN 13501-1 : 2007 Tested according to EN 13823:2010 & EN 11925-2 :2010	Euro Class	Classification t ≥ 6mm	B, S1, d0
2	Flammability Test	UL-94:1997 Classification Requirements	Class	V-0	V-0
3	Spread of flame.	Classification as per BS 476-7	Class	Class-1	Class-1
4	Fire Propagation Test	As per BS 476-6	I (Index)	Test Results based upon Product Behaviour (Test Report No : 7191166866- MEC17/5-YWA)	19.1
5	Reaction to fire (Germany)	DIN 4102-1	Class	В1	NA
6	Reaction to fire (France)	NF P 92-501	Class	M1	NA

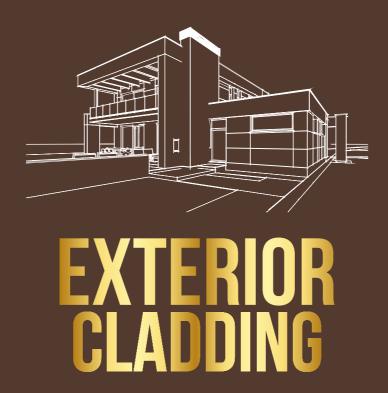


PRODUCT DESCRIPTION

Exterior compact laminate is a solid phenolic, engineered exterior facade panels have a decorative surface on both side. Robust and resilient, these rigid homogeneous panels are manufactured by VIR EXT-LAM using tough thermosetting resins reinforced with cellulose fibre for added strength and durability.

An acrylic overlay provides enhanced UV protection and accordance with EN-438-6, making them ideal for application in ventilated rain screen facades and other external building elements.







CORPORATE OFFICE:

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CERTIFICATIONS:











