THOMAS BELL-WRIGHT
A PHENNA GROUP COMPANY

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH BS EN 13501-1:2018

Test Sponsor:

PRA Panels PVT LTD
PRA Campus near CRPF Camp Baradera,
Mandir Hasod Raipur - 492101
India
T: +91 8282828959
Website: www.alustic.com

Test Specimen:

4 mm thick “Alustic” FR B1 Aluminium Composite Panel

Test Standard:

BS EN 13501-1:2018 – *Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests.*



Classification Reference No.: AQ103-3
Issue Date: 05-Aug-26

Thomas Bell-Wright International Consultants (Dubai Branch)
Plot 599 8987, Corner of 46th and 47th Streets, Jebel Ali Industrial Area 1, Dubai, U.A.E
T: +971 4 821 5777 | fire@bell-wright.com | www.bell-wright.com
UAE ● KSA ● Qatar ● UK

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Accreditation

ISO/IEC 17025 General requirements for the competence of testing and calibrating laboratories with:

United Kingdom Accreditation Service (UKAS) - Testing Laboratory: **4439**
www.ukas.com

Memberships

Members of European Group of Organization for Fire Testing, Inspection and Certification
www.egolf.org.uk

Member of Association for Specialist Fire Protection
www.asfp.org.uk

Member of Centre for Window and Cladding Technology
www.cwct.co.uk

The work which is the subject of this report falls within the scope of the listed ISO/IEC 17025 accreditation above.

TABLE OF CONTENTS

1. INTRODUCTION 4
2. SPONSOR 4
3. TESTING LABORATORY 4
4. DETAILS OF CLASSIFIED PRODUCT 4
5. SPECIMEN DEFINITION & VERIFICATION OF THE TEST SPECIMEN 6
6. SUPPORTING TEST REPORTS 6
6.1. TEST REPORTS 6
7. TEST RESULTS 6
8. CLASSIFICATION & FIELD OF APPLICATION 7
8.1. FIELD OF APPLICATION 7
8.2. LIMITATION 8
9. APPENDIX 1: CLASSIFICATION DEFINITIONS & SUPPORTING INFORMATION 9

1. INTRODUCTION

This classification report defines the classification assigned to 4 mm thick "Alustic" FR B1 Aluminium Composite Panel, as described in §4 *Details Of Classified Product* of this report, in accordance with the procedures given in:

> *BS EN 13501-1:2018 – Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests.*

It has been prepared specifically with respect to §8 and Table 1 of EN 13501-1: *Testing of construction products, excluding flooring and linear pipe thermal insulation products.*

This classification report consists of 9 pages and may only be used or reproduced in its entirety. It has not been completed by a notified body in the context of CE marking.

2. SPONSOR

Name: PRA Panels PVT LTD
Address: PRA Campus near CRPF Camp Baradera,
Mandir Hasod Raipur - 492101
India
T: +91 8282828959
Website: www.alustic.com

3. TESTING LABORATORY

Name: Thomas Bell-Wright International Consultants (TBWIC)
Address: Corner of 46th and 47th streets, Jebel Ali Industrial Area 1
P.O. Box 26385, Dubai, U.A.E.
T: +971 (0) 4 821 5777, F: +971 (0) 4 333 26 93
www.bell-wright.com

4. DETAILS OF CLASSIFIED PRODUCT

Product Details				
Product Reference	4 mm thick "Alustic" FR B1 Aluminium Composite Panel			
Manufacturer	PRA Panels PVT LTD			
Overall Thickness	4.15 mm (measured by TBWIC)			
Overall Area Weight	Stated: 7.20 kg/m^2 | Measured: 7.74 kg/m^2			
Density	1850 kg/m^3 *			
Product Details	Topcoat (Fire Side)	1st Layer	Reference	Topcoat
			Manufacturer	JIANGSU*
			Type	H-16*
			Colour	Bright Silver
			Thickness, DFT	29 microns*
			Area Weight	1.26 kg/m^2 *
			Density	2620 kg/m^3 *
		2nd Layer	Reference	Primer
			Manufacturer	JIANGSU*
			Type	H-16*
			Thickness, DFT	8 – 9 microns*
			Area Weight	1.23 kg/m^2 *
			Density	2600 kg/m^3 *

	Aluminium skin (Top)	Reference	Aluminium skin
		Manufacturer	JIANGSHU*
		Alloy	AA-3003, H-16*
		Thickness	0.45 mm*
		Area Weight	1.26 kg/m^2 *
		Density	2620 kg/m^3 *
	Adhesive (Top)	Reference	LDPE
		Manufacturer	PRA Panel Pvt Ltd*
		Thickness	0.05 mm*
		Area Weight	0.046 kg/m^2 *
		Density	920 kg/m^3 *
	Core	Reference	$Mg(OH)_2$ core
		Manufacturer	PRA Panel Pvt Ltd*
		Thickness	3 mm*
		Area Weight	4.58 kg/m^2 *
		Density	1480 kg/m^3 *
	Adhesive (Bottom)	Reference	LDPE
		Manufacturer	PRA Panel Pvt Ltd*
		Thickness	0.05 mm*
		Area Weight	0.046 kg/m^2 *
		Density	920 kg/m^3 *
	Aluminium skin (Bottom)	Reference	Aluminium skin
		Manufacturer	JIANGSHU*
		Alloy	AA-3003, H-16*
		Thickness	0.45 mm*
		Area Weight	1.23 kg/m^2 *
		Density	2600 kg/m^3 *
	Back coat	Reference	Aluminium*
		Manufacturer	JIANGSHU*
		Type	H-16*
		Colour	Grey*
		Thickness, DFT	0.45 mm*
		Area Weight	1.23 kg/m^2 *
		Density	2600 kg/m^3 *

Notes: The testing laboratory does not hold responsibility for information that has been provided by the sponsor and which could not be verified by the testing laboratory. As this could affect the validity of the tests results, any and all such information which could not be verified has been marked with an asterisk (*).

5. SPECIMEN DEFINITION & VERIFICATION OF THE TEST SPECIMEN

The choice and design and the definition of the specimen have been made by PRA Panels PVT LTD, and TBWIC testing laboratory has not been involved in the selection or design of the specimen. Similarly, the results of the test apply only to the samples as received.

There are contexts where information has been provided by the sponsor and verification of information has been done through either technical datasheet or other document submission, or as indicated directly by the sponsor. For this reason, materials have been tested in an as-received condition and TBWIC bears no liability for the legitimacy of the submitted information.

6. SUPPORTING TEST REPORTS

6.1. TEST REPORTS

Name Of Laboratory	Test Sponsor	Test Report Ref. No	Test Method / Field of Application Rules
Thomas Bell-Wright International Consultants (TBWIC)	PRA Panels PVT LTD	AQ103-2 Dated 5-Aug-26	BS EN 13823:2020+A1:2022
		AQ103-1 Dated 5-Aug-26	BS EN ISO 11925-2:2020

7. TEST RESULTS

Test Method	Limits	No. of Tests	Results	
			Continuous Parameter – Mean	Compliance Parameter
BS EN 13823:2020 +A1:2022	**Criteria for class "B"**			
	$FIGRA_{0.2MJ} \leq 120$ W/s	3	15	Compliant
	$THR_{600s} \leq 7.5$ MJ	3	2.0	Compliant
	Lateral Flame Spread < Edge of Specimen	3	< Edge of Specimen	Compliant
	Criteria for subclass "s1"			
	SMOGRA ≤ 30 m^2/s^2 Note 1	3	0	Compliant
	$TSP_{600s} \leq 50$ m^2 Note 1	3	15	Compliant
	Criteria for subclass "d0"			
	Flaming droplets/particles within 600 s	3	Nil	Compliant
Note 1: Resulting values were corrected in accordance with Annex A, §A.6.1.2 of BS EN 13823:2020+A1:2022				

Test Method	Parameter for class B	No. of Tests	Results	
			Continuous Parameter – Mean	Compliance Parameter
BS EN ISO 11925-2:2020	Fs ≤ 150mm within 60 seconds	18	Fs ≤ 150mm	Compliant
	Ignition of filter paper		Nil	Compliant

8. CLASSIFICATION & FIELD OF APPLICATION

This classification has been prepared in accordance with §8 of BS EN 13501-1:2018.

The product, 4 mm thick "Alustic" FR B1 Aluminium Composite Panel, in relation to its reaction fire behaviour is classified as indicated in the table below. Additional reference information on broader available classifications available for this product type but not specifically the specimens in this report are provided in §9 *APPENDIX 1: CLASSIFICATION DEFINITIONS & SUPPORTING INFORMATION* of this report.

Fire behavior		**Smoke production**			**Flaming droplets**	
B	-	s	1	,	d	0
REACTION TO FIRE CLASSIFICATION: B- s1, d0						
This classification document does not represent type approval or certification of the product.						

8.1. FIELD OF APPLICATION

The classification is also valid for the following product parameters:

Parameter	Allowance
Overall Product Thickness	Results valid only for the tested thickness
Coating Type & Thickness	Results valid only for the tested type & thickness
Topcoat Colour	Results valid only for the tested colour
Product Composition	No variation allowed

The classification is also valid for the following end-use parameters:

Parameter	Allowance
Product Construction	No variation allowed
Air Gap	Results valid for product applications with air gap depth ≥ 40 mm
Joint Width	Results valid for product applications with vertical and horizontal open joints ≤ 10 mm

8.2. LIMITATION

This report and all records of the test to which it relates may not be retained by TBWIC beyond 5 years from the date of testing.

This classification report is respectfully submitted by: Thomas Bell-Wright International Consultants.

Prepared By:

Esther Gitau
Fire Testing Engineer

توماس بيل رايت انترناشيونال للاستشارات (فرع دبي)
P.O.Box: 26385
DUBAI - U.A.E.
Thomas Bell-Wright Int'l Consultants (Dubai Br.)

Authorized By:

Daisan Dippi, AIFireE
Director Fire Compliance

Report Revision Tracking		
Revision No.	**Issue Date**	**Notes & Amendments**
Rev. 00	05-Aug-26	This is the first issue of the report. No revisions are included.

9. APPENDIX 1: CLASSIFICATION DEFINITIONS & SUPPORTING INFORMATION

The following table has been transcribed directly from Table 1 of EN 13501-1:2018 for reaction to fire construction products excluding floorings and linear pipe thermal insulation products, and has been provided for supporting information. The classifications below do not indicate additional performance of the product outlined in the body of this classification report.

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 [a] and	$\Delta T \leq 30$ °C; and $\Delta m \leq 50$ %; and $t_f = 0$ sec. (i.e. no sustained flaming)	-
	EN ISO 1716	PCS ≤ 2,0 MJ/kg [a] and PCS ≤ 2,0 MJ/kg [b c] and PCS ≤ 1,4 MJ/m² [d] and PCS ≤ 2,0 MJ/kg [e]	-
A2	EN ISO 1182 [a] or	$\Delta T \leq 50$ °C; and $\Delta m \leq 50$ %; and $t_f \leq 20$ sec.	-
	EN ISO 1716 and	PCS ≤ 3,0 MJ/kg [a] and PCS ≤ 4,0 MJ/m² [b] and PCS ≤ 4,0 MJ/m² [d] and PCS ≤ 3,0 MJ/kg [e]	-
	EN 13823	$FIGRA_{0.2MJ} \leq 120$ W/s and LFS < edge of specimen and $THR_{600s} \leq 7,5$ MJ	Smoke production [f] and Flaming droplets/particles [g]
B	EN 13823 and	$FIGRA_{0.2MJ} \leq 120$ W/s and LFS < edge of specimen and $THR_{600s} \leq 7,5$ MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	$F_s \leq 150$ mm within 60 s	
C	EN 13823 and	$FIGRA_{0.4MJ} \leq 250$ W/s and LFS < edge of specimen and $THR_{600s} \leq 15$ MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	$F_s \leq 150$ mm within 60 s	
D	EN 13823 and	$FIGRA_{0.4MJ} \leq 750$ W/s	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	$F_s \leq 150$ mm within 60 s	
E	EN ISO 11925-2 [i]: Exposure = 15 s	$F_s \leq 150$ mm within 20 s	Flaming droplets/particles [h]
F	EN ISO 11925-2 [i]: Exposure = 15 s	$F_s > 150$ mm within 20 s	

[a] For homogeneous products and substantial components of non-homogeneous products.
[b] For any external non-substantial component of non-homogeneous products.
[c] Alternatively, any external non-substantial component having a PCS ≤ 2,0 MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA ≤ 20 W/s, and LFS < edge of specimen, and $THR_{600s} \leq 4,0$ MJ, and s1, and d0.
[d] For any internal non-substantial component of non-homogeneous products.
[e] For the product as a whole.
[f] In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.
***s1** = SMOGRA ≤ 30m²/s² and $TSP_{600s} \leq 50m^2$; **s2** = SMOGRA ≤ 180m²/s² and $TSP_{600s} \leq 200m^2$; **s3** = not s1 or s2*
*[g] **d0** = No flaming droplets/ particles in EN 13823 within 600 s;*
***d1** = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;*
***d2** = not d0 or d1.*
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.
[h] Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).
[i] Under conditions of surface flame attack and, if appropriate to the end–use application of the product, edge flame attack.

----- End of Classification Report -----