SF40-FR

Shadow Fixed 40mm Fire Rated Rainscreen System

EN13501-1:2018 Classification (Reaction to Fire)

Hamilton METAL FORMING LTD

SPANWALL A HAMILTON BRAND

www.hamiltonmetalforming.com

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

Test Sponsor:

Hamilton Metal Forming

Test Material / Assembly:

3mm thick Spanwall Rainscreen Panels

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Issue Date: 21-Mar-23
Classification Report Reference No: WK078-3

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

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1. INTRODUCTION

This classification report defines the classification assigned to 3mm thick Coated Panels D1036 Matt (30) 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.

2. SPONSOR

Name: Hamilton Metal Forming

3. TESTING LABORATORY

Name: Thomas Bell-Wright International Consultants (TBWIC)
Address: Corner of 46th and 47th Streets,
Jebel Ali Industrial Area 1
Dubai, UAE
T: T: +971 04 821 5777
Website: www.bell-wright.com

4. DETAILS OF CLASSIFIED PRODUCT

Note: The testing laboratory does not hold any responsibility for the information that has been provided by the test sponsor which could not be verified by the testing laboratory, as this could affect the validity of the test result. All information that could not be verified will be indicated by an asterisk (*) mark.

Product Description		3mm thick Coated Panels *	
Product Reference		Rainscreen Panel*	
Manufacturer		Spanwall*	
Overall Area Weight		8.46 kg/m^2 (measured by TBWIC)	
Overall Thickness		3mm (measured by TBWIC)	
Product Details	**Paint (fire side)**	Material	PPC*
		Manufacturer	Akzo Nobel Interpon D1036*
		Thickness	60-110µm* (stated)
		Color	RAL 7035 Matt*
		Area Weight	0.2 kg/m^2* (stated)
		Density	1500 kg/m^3* (stated)
	Aluminium Panel	Material	Rainscreen Panel*
		Manufacturer	Spanwall*
		Thickness	3mm* (stated)

		Area Weight	8.19 kg/m²* (stated)
		Density	2730 kg/m³* (stated)

5. SPECIMEN PREPARATION PROCEDURE

The choice and design and the definition of the specimen have been made by Spanwall Facades Ltd., and TBWIC Testing Laboratory has not been involved in the selection or design of the specimen. The results of the test apply only to the samples as received.

Note: 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. REPORT & TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

6.1. Reports

Name of Laboratory	Test Sponsor	Test Report No.	Test Method/Field of Application Rules
Thomas Bell-Wright International Consultants (TBWIC)	Hamilton metal forming	WK078-1	BS EN ISO-1716:2018
		WK078-2	EN 13823:2020

6.2. Results

Test Method	Parameter			No. of tests	Results	
	Component type	Limits	Layers		Continuous parameter-mean (m)	Compliance parameters
BS EN ISO 1716:2018	External Non-substantial	PCS ≤ 4.0 MJ/m²	Paint	3	3.2	Compliant
	Substantial	PCS ≤ 3.0 MJ/kg	Panel	0	0.0	Compliant
	Product as a whole	PCS ≤ 3.0 MJ/kg	-	-	0.4	Compliant

Test Method	Test Parameters	No. of tests	Results	
			Continuous parameter-mean (m)	Compliance parameters
BS EN	$FIGRA_{0.2MJ}$ ≤ 120 W/s	3	0	Compliant

13823:2020	THR600s ≤ 7.5 MJ	3	0.4	Compliant
	Lateral Flame Spread < Edge of specimen	3	< Edge of specimen	Compliant
	CRITERIA for subclass "s1"			
	SMOGRA ≤ 30 m^2/s^2 *Note1*	3	0	Compliant
	TSP600s ≤ 50 m^2 *Note1*	3	10	Compliant
	CRITERIA for subclass "d0"			
	Flaming droplets/Particles within 600s	3	Nil	Compliant

7. CLASSIFICATION & FIELD OF APPLICATION

7.1. Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2018.

7.2. Classification

The product, 3mm thick Coated Panels, in relation to its reaction to fire behavior are classified;

Fire behavior		**Smoke Production**			**Flaming droplets**	
A2	-	s	1	,	d	0

Reaction to fire classification: A2 – s1, d0

7.3. Field of application

This classification is valid for the following end use applications:

i. Construction applications

This classification is also valid for the following product parameters:

Overall Product Thickness	No variation allowed
Product Density	No variation allowed
Product Composition	No variation allowed
Product Construction	No variation allowed
Joints	Results valid only for material with or without vertical and horizontal joints of 20mm
Color	No variation allowed

8. LIMITATIONS

This document does not represent type approval or certification of the product. Similarly, the BS EN 13823 & BS EN ISO 1716 fire tests and related work which are a subject of this classification report have been conducted under Thomas Bell-Wright International Consultant's ISO 17025 UKAS accreditation scheme and quality management system. However, pursuant to UKAS Technical Bulletin *BS EN 13501 & BR 135 Classification Documents (Dated 02-Feb-2022)*, classification documents are completed on an unaccredited basis because they are not themselves test procedures. As such, this document is prepared on an unaccredited basis.

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

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

Prepared by:

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Junior Fire Testing Engineer

Reviewed & Authorized by:

Suketa Tyagi
Manager - Reaction to Fire

P.O.Box: 26385
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Thomas Bell-Wright Int'l Consultants (Dubai Br.)

Report Revision Tracking		
Report Reference	**Date Issued**	**Notes & Amendments**
Rev. 00	28-Mar-23	This is the first issue of the report. No revisions are included.

9. ANNEXURE A

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 [a] and	ΔT ≤ 30 °C; and Δm ≤ 50 %; and tf = 0 (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/m^2 [d] and PCS ≤ 2,0 MJ/kg [e]	-
A2	EN ISO 1182 [a] or	ΔT ≤ 50 °C; and Δm ≤ 50 %; and tf ≤ 20 s	-
	EN ISO 1716 and	PCS ≤ 3,0 MJ/kg [a] and PCS ≤ 4,0 MJ/m^2 [b] and PCS ≤ 4,0 MJ/m^2 [d] and PCS ≤ 3,0 MJ/kg [e]	-
	EN 13823	FIGRA ≤ 120 W/s and LFS < edge of specimen and THR_{600s} ≤ 7,5 MJ	Smoke production [f] and Flaming droplets/particles [g]
B	EN 13823 and	FIGRA ≤ 120 W/s and LFS < edge of specimen and THR_{600s} ≤ 7,5 MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	Fs ≤ 150 mm within 60 s	
C	EN 13823 and	FIGRA ≤ 250 W/s and LFS < edge of specimen and THR_{600s} ≤ 15 MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	Fs ≤ 150 mm within 60 s	
D	EN 13823 and	FIGRA ≤ 750 W/s	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i]: Exposure = 30 s	Fs ≤ 150 mm within 60 s	
E	EN ISO 11925-2 [i]: Exposure = 15 s	Fs ≤ 150 mm within 20 s	Flaming droplets/particles [h]
F	EN ISO 11925-2 [i]: Exposure = 15 s	Fs > 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/m^2, provided that the product satisfies the following criteria of EN 13823: FIGRA ≤ 20 W/s, and LFS < edge of specimen, and THR_{600s} ≤ 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} *≤ 50m² ;* ***s2*** *= SMOGRA ≤ 180m²/s² and* TSP_{600s} *≤ 200m²;* ***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 ----

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