

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

## Test Sponsor:

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## Test Material/Assembly:

3D Moulded Decorative Wall Tiles

ACOUSTEKK



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## Accreditation

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

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



## Memberships

Members of European Group of Organization for Fire Testing, Inspection and Certification

[www.egolf.org.uk](http://www.egolf.org.uk)

Member of International Trade Council

[www.thetradecouncil.com](http://www.thetradecouncil.com)

Member of Association for Specialist Fire Protection

[www.asfp.org.uk](http://www.asfp.org.uk)

Member of Centre for Window and Cladding Technology

[www.cwct.co.uk](http://www.cwct.co.uk)



The work which is the subject of this report falls wholly or partly under the accreditations of **ISO 17025** **UKAS**.



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## 1. INTRODUCTION

This classification report defines the classification assigned to 3D Moulded Decorative Wall Tiles 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: CSR Martini Pty Limited  
Address: 4 Macdonald Road,  
Ingleburn NSW 2565, Australia  
Tel: 1300 767 776, Fax: 02 9829 2211  
E: martinienquiries@csr.com.au

## 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 +971 (0)4 821 5777  
Website: www.bell-wright.com

## 3. DETAILS OF CLASSIFIED PRODUCT

### 3.1. Product Description

*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.*

<b>Product Name</b>	3D Moulded Decorative Wall Tiles (Available size: 495 x 495mm, Flange height: 50mm)
<b>Manufacturer</b>	CSR Martini Pty Limited
<b>Thickness</b>	3-4mm (measured by TBWIC)
<b>Area weight</b>	1.1 kg/m <sup>2</sup> (measured by TBWIC)

## 4. REPORT & TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

### 4.1. Reports

Name of Laboratory	Test Sponsor	Test Report No.	Test Method/Field of Application Rules
Thomas Bell-Wright International Consultants (TBWIC)	CSR Martini Pty Limited	TF058-2	BS EN ISO 11925-2:2010
		TF058-1	BS EN 13823:2010 +A1:2014



## 4.2. Results

Test Method	TEST PARAMETERS	No. of tests	TEST RESULTS	
			Continuous parameter-mean (m)	Compliance parameters
BS EN ISO 11925-2:2010	$F_s \leq 150\text{mm}$ within 60 seconds	12	$F_s \leq 150\text{mm}$	Compliant
	Ignition of filter paper		Nil	Compliant

Test Method	TEST PARAMETERS	No. of tests	TEST RESULTS	
			Continuous parameter-mean (m)	Compliance parameters
BS EN 13823:2010 +A1:2014	$\text{FIGRA}_{0,2} \text{ MJ} \leq 120 \text{ W/S}$	3	45	Compliant
	$\text{THR}_{600\text{s}} \leq 7.5 \text{ MJ}$	3	5.2	Compliant
	Lateral Flame Spread < Edge of Specimen	3	< Edge of Specimen	Compliant
	<b>CRITERIA for subclass "s1"</b>			
	$\text{SMOGR}_A \leq 30\text{m}^2/\text{s}^2$	3	0	Compliant
	$\text{TSP}_{600\text{s}} \leq 50\text{m}^2$	3	17	Compliant
	<b>CRITERIA for subclass "d0"</b>			
	Flaming droplets/particles within 600s	3	Nil	Compliant

## 5. CLASSIFICATION & FIELD OF APPLICATION

### 5.1. Reference of classification

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

### 5.2. Classification

The product, 3D Moulded Decorative Wall Tiles, in relation to its reaction to fire behavior are classified;

Fire behavior		Smoke production			Flaming droplets	
<b>B</b>	-	s	1	,	d	0

**Reaction to fire classification: B- s1, d0**

Remark: The classes with their corresponding fire performance are given in annex A.



### 5.3. 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
Configuration	Valid for system without joints and for system with horizontal and vertical joints on tested configuration

## 6. LIMITATIONS

This document does not represent type approval or certification of the product.

This report and all records of the test to which it relates may 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:

Reviewed and Approved by:

for: *Inave*  
Sujana Haridas  
Fire Testing Engineer



*Suketa*  
Suketa Tyagi  
Reaction to Fire Manager



## 7. 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
<b>A1</b>	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30 \text{ }^\circ\text{C}$ ; and $\Delta m \leq 50 \%$ ; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2,0 \text{ MJ/kg}$ <sup>a</sup> and $PCS \leq 2,0 \text{ MJ/kg}$ <sup>b c</sup> and $PCS \leq 1,4 \text{ MJ/m}^2$ <sup>d</sup> and $PCS \leq 2,0 \text{ MJ/kg}$ <sup>e</sup>	-
<b>A2</b>	EN ISO 1182 <sup>a</sup> or	$\Delta T \leq 50 \text{ }^\circ\text{C}$ ; and $\Delta m \leq 50 \%$ ; and $t_f \leq 20 \text{ s}$	-
	EN ISO 1716 and	$PCS \leq 3,0 \text{ MJ/kg}$ <sup>a</sup> and $PCS \leq 4,0 \text{ MJ/m}^2$ <sup>b</sup> and $PCS \leq 4,0 \text{ MJ/m}^2$ <sup>d</sup> and $PCS \leq 3,0 \text{ MJ/kg}$ <sup>e</sup>	-
	EN 13823	$FIGRA \leq 120 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
<b>B</b>	EN 13823 and	$FIGRA \leq 120 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150 \text{ mm}$ within 60 s	
<b>C</b>	EN 13823 and	$FIGRA \leq 250 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> : Exposure = 30 s	$F_s \leq 150 \text{ mm}$ within 60 s	
<b>D</b>	EN 13823 and	$FIGRA \leq 750 \text{ W/s}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> : Exposure = 30 s	$F_s \leq 150 \text{ mm}$ within 60 s	
<b>E</b>	EN ISO 11925-2 <sup>i</sup> : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	Flaming droplets/particles <sup>h</sup>
<b>F</b>	No performance determined		

<sup>a</sup> For homogeneous products and substantial components of non-homogeneous products.

<sup>b</sup> For any external non-substantial component of non-homogeneous products.

<sup>c</sup> Alternatively, any external non-substantial component having a  $PCS \leq 2,0 \text{ MJ/m}^2$ , provided that the product satisfies the following criteria of EN 13823:  $FIGRA \leq 20 \text{ W/s}$ , and  $LFS < \text{edge of specimen}$ , and  $THR_{600s} \leq 4,0 \text{ MJ}$ , and  $s1$ , and  $d0$ .

<sup>d</sup> For any internal non-substantial component of non-homogeneous products.



<sup>e</sup> For the product as a whole.

<sup>f</sup> 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  $\leq 30\text{m}^2/\text{s}^2$  and  $\text{TSP}_{600\text{s}} \leq 50\text{m}^2$ ; **s2** = SMOGRA  $\leq 180\text{m}^2/\text{s}^2$  and  $\text{TSP}_{600\text{s}} \leq 200\text{m}^2$ ; **s3** = not s1 or s2

<sup>g</sup> **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.

<sup>h</sup> Pass = no ignition of the paper (no classification);

Fail = ignition of the paper (d2 classification).

<sup>i</sup> 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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