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Testing. Advising. Assuring.

**Title:**

CLASSIFICATION REPORT  
FOR ROOFS/ROOF  
COVERINGS EXPOSED TO  
EXTERNAL FIRE  
EN 13501-5: 2005 +A1:  
2009

**Notified Body No:**

0833

**Product Names:**

A built up roof system  
incorporating solar panel  
referenced "TSM-  
DC05A.05"

**Report No:**

WF 372041

**Issue No:**

1

**Prepared for:**

SVH Energie  
155 Rue Du Docteur Bauer  
93400 Saint Ouen  
France

**Date:**

5<sup>th</sup> October 2016



0249

## 1. Introduction

This classification report defines the classification assigned to a built up roof system incorporating solar panel referenced "TSM-DC05A.05", which is fully described in paragraph 2.2, in accordance with the procedures given in EN 13501-5: 2005: + A1: 2009

## 2. Details of classified product

### 2.1 General

The product, a built up roof system incorporating solar panel referenced "TSM-DC05A.05", is defined as being suitable for roof covering applications.

### 2.2 Product description

The product, a built up roof system incorporating solar panel referenced "TSM-DC05A.05", is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		In-roof mounting system for a solar panel
Product reference of overall composite		No product reference was assigned to this product
Name of manufacturer of overall composite		GSE
Thickness of overall composite		<b>See Note 1 Below</b>
Weight per unit area of overall composite		<b>See Note 1 Below</b>
Solar panel	Generic type	Solar panel
	Product reference	"TSM-DC05A.05"
	Detailed description	Solar panel made of aluminium, glass and monocrystal
	Name of manufacturer	Trina Solar
	Thickness	35mm
	Weight per unit area	<b>See Note 1 Below</b>
	Flame retardant details	<b>See Note 2 Below</b>
Concrete tile	Generic type	Concrete roofing tile
	Product reference	"Marley Mendip Roofing Tile"
	Name of supplier	"Marley Mendip"
	Colour reference	"Brown"
	Dimensions	30mm x 340mm 60mm to height of profile)
	Weight per unit area	32kg/m <sup>2</sup>
	Flame retardant details	<b>See Note 2 Below</b>
Moulded tray	Generic type	Polypropylene
	Product reference	"GSE Portrait 1640/992"
	Name of manufacturer	GSE
	Thickness	13mm
	Weight per unit area	2.5kg/m <sup>2</sup>
	Colour reference	"Black"
	Flame retardant details	<b>See Note 2 Below</b>

Continued on next page

Timber battens	Generic type	Wood battens
	Product reference	"Pine Tree Battens"
	Name of manufacturer	<b>See Note 3 Below</b>
	Dimensions	25mm x 45mm
	Density	380kg/m <sup>3</sup>
	Colour reference	"Natural"
	Flame retardant details	<b>See Note 2 Below</b>
Roofing felt	Generic type	Roof underlay
	Product reference	"Easytrim Master Breather Membrane"
	Name of supplier	Travis Perkins
	Colour reference	"Grey"
	Thickness	0.4mm
	Weight per unit area	117.5g/m <sup>2</sup>
	Flame retardant details	<b>See Note 2 Below</b>
Timber joist	Generic type	Wood battens
	Product reference	"Pine Tree Battens"
	Name of manufacturer	<b>See Note 3 Below</b>
	Dimensions	45mm x 95mm
	Density	380kg/m <sup>3</sup>
	Colour reference	"Natural"
	Flame retardant details	<b>See Note 2 Below</b>
Brief description of manufacturing process		<b>See Note 3 Below</b>

Note 1: The sponsor was unable to provide this information.

Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the product / component.

Note 3: The sponsor was unwilling to provide this information.

### 3. Test reports & test results in support of classification

#### 3.1 Test reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Exova Warringtonfire	SVH Energie	WF 371021 (Issue 2)	ENV 1187:2002 Test 4

### 3.2 Test results

#### 3.2.1 Test 4

Test pitch: 45 degrees

Substrate/Deck: N/A

Supporting structure: Timber Joist

#### Preliminary test (Stage 1):

Parameter	Criteria	Test Results	Compliance
	Class B <sub>ROOF</sub> (t4)	Specimen 1	Class B <sub>ROOF</sub> (t4)
Burn time	<5min	NIL	Y
Flame spread distance	<0,38m	NIL	Y
Penetration	None	None	Y

#### Penetration test (Stage 2):

Parameter	Criteria	Test Results				Compliance
	Class B <sub>ROOF</sub> (t4)	Specimen 1	Specimen 2	Specimen 3	Mean <sup>a</sup>	Class B <sub>ROOF</sub> (t4)
Penetration time	≥60min	60min	60min	60min	60min	Y

<sup>a</sup> If one or two of the specimens have not failed at one hour, a time of 60min shall be used in calculating the mean time of penetration.

### 4. Classification and field of application

#### 4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-5: 2005: + A1: 2009

#### 4.2 Classification

The product, a built up roof system incorporating solar panel referenced "TSM-DC05A.05", in relation to its external fire performance is classified:

**B<sub>ROOF</sub> (t4)**

### 4.3 Field of application

This classification is valid for the following conditions:

Range of pitches	>10 degrees
Substrate/Deck	N/A
Product configuration	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed
Product thickness	No variation allowed
Supporting structure	No variation allowed

### 5. Limitations

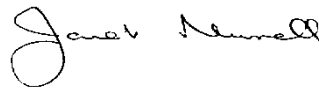
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#### SIGNED



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#### APPROVED



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on behalf of:  
**Exova Warringtonfire**

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