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Liquasil Limited  
Unit 8 Radway Industrial Estate  
Radway Road  
Solihull  
B90 4NR  
Northamptonshire

**Referenced Quote No:**

Q2501001

**Identity of Test Item:**

Metal Roof Coating System – B3-6

**Applied Standard:**

Classification report for roofs/roof coverings exposed to external fire  
BS EN 13501-5:2005+A1:2009

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The applied method(s), test result(s) and the uncertainties (if requested) with confidence probability are given on the following pages which are part of this technical report.

**Technical Report Date:**

14-Mar-25

**Prepared by:**

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**Reviewed by:**

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## 1. Introduction

This classification report<sup>1</sup> defines the classification assigned to roof/roof covering Metal Roof Coating System – B3-6 in accordance with the procedures in BS EN 13501-5:2005+A1:2009.

<sup>1</sup> This report replaces classification report no: R250024 Issue:1 Date: 31-Jan-25.

 This revised report has the term “Langley” removed from all references of the sample name in the following sections:

- ❖ Identity of Test Item
- ❖ Sample name in sections 1. Introduction, 4. Description of Sample and 6. BS EN 13501-5:2005+A1:2009 Classification.

 The sections “4.1 General Arrangement of Panels”, “4.1.1 ‘Base Layer’” and “4.1.2 Layer 1” have been removed from the report and are now referenced to Technical Report R250009 for the sample descriptions.

## 2. Client

Liquasil Limited  
Unit 8 Radway Industrial Estate  
Radway Road  
Solihull  
B90 4NR  
Northamptonshire

## 3. Referenced Standards

Tests have been carried out by taking the standards indicated below into consideration:

DD CEN/TS 1187:2012: Test Methods for External Fire Exposure to Roofs

BS EN 13238:2010: Reaction to Fire Tests for Building Products – Conditioning Procedures and General Rules for Selection of Substrates

BS EN 13501-1:2007+A1:2009<sup>2</sup>: Fire Classification of Construction Products and Building Elements

Part 1: Classification Using Data from Reaction to Fire Tests

BS EN 13501-5:2005+A1:2009<sup>2</sup>: Fire Classification of Construction Products and Building Elements

Part 5: Classification Using Data from External Fire Exposure to Roofs Tests

<sup>2</sup> Note: Standards have been withdrawn/superseded. DD CEN/TS 1187:2012 states normative reference documents are indispensable for the application and for dated reference, only the edition cited applies.

#### 4. Description of Sample

The roof/roof covering Metal Roof Coating System – B3-6 is fully described in the test report R250009 in support of the classification is listed in Section 6.

#### 5. Report(s) in Support of this Classification

##### 5.1 Report(s)

**Table 1**

| Name of UKAS Accredited Test Laboratory | Name of Sponsor                       | Report Ref. / Date    | Test method                          |
|---|---------------------------------------|-----------------------|--------------------------------------|
| Attain RTC Limited<br>(No. 27297)       | Langley Waterproofing Systems Limited | R250009/<br>30-Jan-25 | DD CEN/TS 1187:2012<br>Test Method 4 |

##### 5.2 Test Results in Support of Classification

###### 5.2.1 Test conditions

|                  |                            |      |
|------------------|----------------------------|------|
| Lab. Temp. (°C): | Start of Stage 1:          | 17.3 |
|                  | Start of Stage 2 (Test 1): | 14.9 |
|                  | Start of Stage 2 (Test 2): | 18.0 |
|                  | Start of Stage 2 (Test 3): | 17.9 |

###### 5.2.2 Test pitch

The specimens were tested in the sloping position: 45°

#### 6. BS EN 13501-5:2005+A1:2009 Classification

Fire classification of construction products and building elements. Part 5: Classification using data from external fire exposure to roof tests.

**Table 2: Classification Parameters**

| Criteria Classification |                       |                        |                        |                        |                        |
|-------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| Stage                   | Parameter             | B <sub>ROOF</sub> (t4) | C <sub>ROOF</sub> (t4) | D <sub>ROOF</sub> (t4) | E <sub>ROOF</sub> (t4) |
| 1                       | Burn time             | < 5 min                | < 5 min                | < 5 min                | ≥ 5 min                |
|                         | Flame spread distance | < 0.38 m               | < 0.38 m               | < 0.38 m               | No limit               |
|                         | Penetration           | None                   | None                   | None                   | None                   |
| 2                       | Penetration           | ≥ 60 min               | < 60 min<br>≥ 30 min   | < 30 min               | < 30 min               |

**Table 3: Test Result Classification**

| Stage | Parameter             | Test Results      |                     | Compliance Classification |                        |                        |                        |
|-------|-----------------------|-------------------|---------------------|---------------------------|------------------------|------------------------|------------------------|
|       |                       | Sample Ref.       | Result <sup>a</sup> | B <sub>ROOF</sub> (t4)    | C <sub>ROOF</sub> (t4) | D <sub>ROOF</sub> (t4) | E <sub>ROOF</sub> (t4) |
| 1     | Burn time             | S24110003 -1      | 00:00               | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
|       | Flame spread distance |                   | 0.00m               | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
|       | Penetration           |                   | None                | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
| 2     | Penetration           | S24110003 -2      | None                | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
|       |                       | S24110003 -3      | None                | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
|       |                       | S24110003 -4      | None                | Y / N                     | Y / N                  | Y / N                  | Y / N                  |
|       |                       | Mean <sup>b</sup> | 60 min              | Y / N                     | Y / N                  | Y / N                  | Y / N                  |

<sup>a</sup> Not for extended application.

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

The roof / roof covering Metal Roof Coating System – B3-6 in relation to its external fire performance, classified;

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

## 7. Field of Application

This classification is valid for the following conditions:

Range of pitches;  $\geq 10^\circ$ .

The classification is valid only for the deck and supporting structure as tested in Technical Report R250009.

## 8. Limitations

### WARNING

BS EN 13501-5:2005+A1:2009 does not represent type approval or certification of the product.