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Aperture
Richmond Road
Trafford Park
Manchester
M17 1RE

Quote Number:

Q2403014

Product Identification:

Aperture Weathering System

Sample Arrival Date:

14-May-24

Sample Number(s):

S24030021

Applied Method:

The test was carried out in accordance with;
DD CEN/TS 1187:2012 – Test 4
Test Methods for External Fire Exposure to Roofs

Test Performance Date(s):

26-Mar-25

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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.

Prepared By

Tim Merrick
Testing Technician

Reviewed By

Chris Davey
General Manager

This report replaces R250084 issue 1 dated 30-Apr-25. Changes to the report are per client request.
 Construction details Layer 1: "Manufacturer" Carlilse to Carlisle
 Construction details Layer 4: "Generic type & Product reference" Plastico to Plastisol

1. Referenced Standards

Testing has been carried out in accordance with the following standards:

- DD CEN/TS 1187:2012 Test Methods for External Fire Exposure to Roofs – Test 4: Method with Two Stages Incorporating Burning Brands, Wind and Supplementary Radiant Heat
- BS EN 13238:2010 Reaction to Fire Tests for Building Products – Conditioning Procedures and General Rules for Selection of Substrates

2. Sample Description

The following descriptions relate to the sample(s) subjected to test. The sample(s) and descriptions were provided by the test sponsor, the information listed below was not verified by the laboratory unless stated otherwise.

¹ Descriptions are required in accordance with DD CEN/TS 1187:2012.

Sample Number	S24060021
¹ Sample Name	Aperture Weathering System
¹ Manufacturer	Aperture
Thickness	401mm
Mass per Unit Area	Not submitted
Test Orientation	Horizontal

The sample consists of layers as described below.

Layer	Construction Details	
Base	<i>Generic Type</i>	Gypsum board with embedded glass mat facers
	<i>Product Reference</i>	DensDeck Prime Roof Board
	<i>Manufacturer</i>	Georgia Pacific LLC
	<i>Thickness</i>	15.9mm double layered
	<i>Mass per Unit Area</i>	2.5kg/m ²
	<i>Application Method</i>	Mechanically fastened
	<i>Colour Reference</i>	White with Grey faces
	<i>Joints</i>	Butt joint

Layer	Construction Details	
1	<i>Generic Type</i>	Vapour Control Layer
	<i>Product Reference</i>	Alutrix 600
	<i>Manufacturer</i>	Carlisle Construction Material GMBH
	<i>Thickness</i>	0.6mm
	<i>Mass per Unit Area</i>	700g/m ²
	<i>Colour</i>	Grey
	<i>Application Method</i>	Self-adhesive with FG35 Primer
	<i>Joints</i>	50mm overlap

Layer	Construction Details	
2	<i>Generic Type</i>	Mineral wool insulation
	<i>Product Reference</i>	Rockwool Hardrock Multi-Fix Insulation Boards
	<i>Manufacturer</i>	Rockwool
	<i>Thickness</i>	350mm
	<i>Mass per Unit Area</i>	56kg/m ²
	<i>Colour</i>	Brown
	<i>Application Method</i>	Mechanically fastened
	<i>Joints</i>	Butt joints

Layer	Construction Details	
3	<i>Generic Type</i>	Gypsum board with embedded glass mat facers
	<i>Product Reference</i>	DensDeck Prime Roof Board
	<i>Manufacturer</i>	Georgia Pacific LLC
	<i>Thickness</i>	15.9mm
	<i>Mass per Unit Area</i>	2.5kg/m ²
	<i>Application Method</i>	Mechanically fastened
	<i>Colour Reference</i>	White with Grey faces
	<i>Joints</i>	Butt joint

Layer	Construction Details	
4	<i>Generic Type</i>	Galvanised steel with plastisol coating
	<i>Product Reference</i>	Plastisol coated metal
	<i>Manufacturer</i>	ArcelorMittal
	<i>Layer Depth</i>	0.7mm
	<i>Mass per Unit Area</i>	5.5kg/m ²
	<i>Colour</i>	Goosewing Grey
	<i>Joints</i>	Butt joint

Layer	Construction Details	
5	<i>Generic Type</i>	Liquid applied waterproofing system
	<i>Product Reference</i>	Aperture Weathering System
	<i>Manufacturer</i>	Aperture
	<i>Application Method</i>	Aperture weathering system applied at 0.5 l/m ² , Aperture regular glass fibre mat, Aperture weathering system applied at a rate of 1 l/m ² and Aperture
	<i>Colour Reference</i>	Slate Grey
	<i>Joints</i>	Seamless

Sample Selection

The laboratory was not involved in sample selection, the test results apply to the sample in the as received condition.

Conditioning

Prior to testing the specimens were conditioned in accordance with BS EN 13238:2010.

Specimen Preparation

Specimens were prepared in accordance with DD CEN/TS 1187:2012 by Attain RTC.

3. Test Performance

In accordance with DD CEN/TS 1187 test method 4, this test is to determine the performance of roofs to external fire exposure. Test method 4 is performed in two stages.

-  Stage 1 is preliminary ignition test with a burning brand only, one test is performed, with the duration of flaming, spread of flame and flaming penetration of sample recorded.
-  Stage 2 incorporates burning brands, wind and supplementary radiant heat. The fire penetration and the production of flaming, non-flaming droplets or debris falling from the underside of the roof or from the exposed surface is recorded along with the structural integrity of the specimen throughout the test.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

4. Deviations

Tests were performed in accordance to standard with no deviations

5. Test Results

Stage 1

Sample Number:	S24030021-1
Lab Temperature [°C]:	18.5°C
Duration of Flaming [min:sec]:	00:00
Extent of Flame Spread [mm]:	60mm
Penetration Occurred:	No

Stage 2

	1	2	3
Sample Number:	S24030021-2	S24030021-3	S24030021-4
Lab Temperature [°C]:	18.9°C	18.8°C	19.8°C
Penetration Occurred:	No	No	No
Melting Occurred:	No	No	No
Molten Debris Observed:	No	No	No
Flaming Debris Observed:	No	No	No
Mechanical Failure:	No	No	No

Specimen Number	Time [min:sec]	Observations
S24030021-2	00:46	Smoke from specimen observed
	02:07	Specimen began to dome on surface
	05:00	Burning brand applied
	05:05	Flaming of specimen starts
	06:00	Burning brand removed
	39:25	Flaming ceases
	60:00	Test end

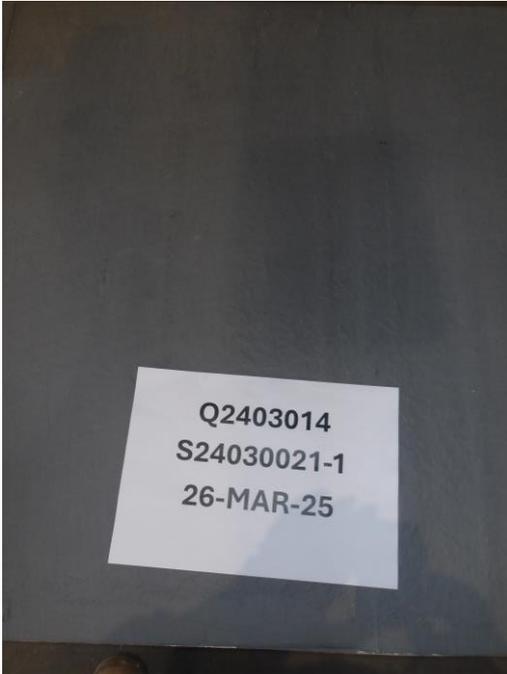
Specimen Number	Time [min:sec]	Observations
S24030021-3	00:46	Smoke from the specimen observed
	01:18	Specimen began to dome on surface
	05:00	Burning brand applied
	05:07	Flaming of specimen starts
	06:00	Burning brand removed
	12:43	Flaming of specimen ceases
	60:00	Test end

Specimen Number	Time [min:sec]	Observations
S24030021-4	00:35	Smoke from specimen observed
	00:50	Specimen began to dome on surface
	05:00	Burning brand applied
	05:06	Flaming of specimen start
	06:00	Burning brand removed
	28:39	Flaming of specimen ceases
	60:00	Test end

6. Photos

Stage 1 – S24030021-1

Pre-Test Specimen Picture

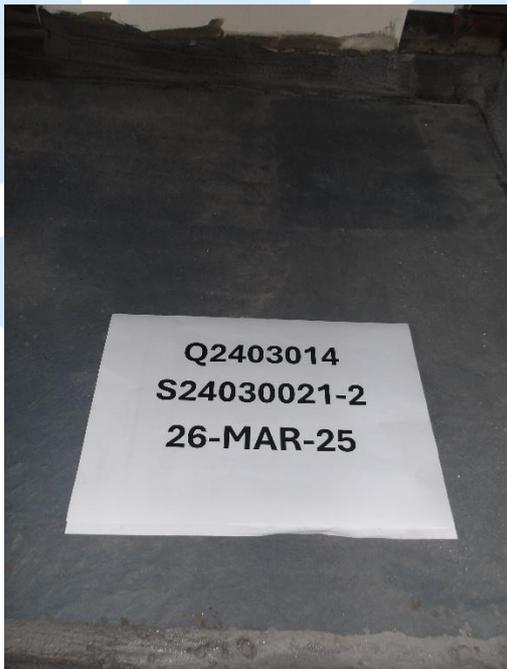


Post Test Picture



Stage 2 – S24030021-2

Pre-Test Specimen Picture

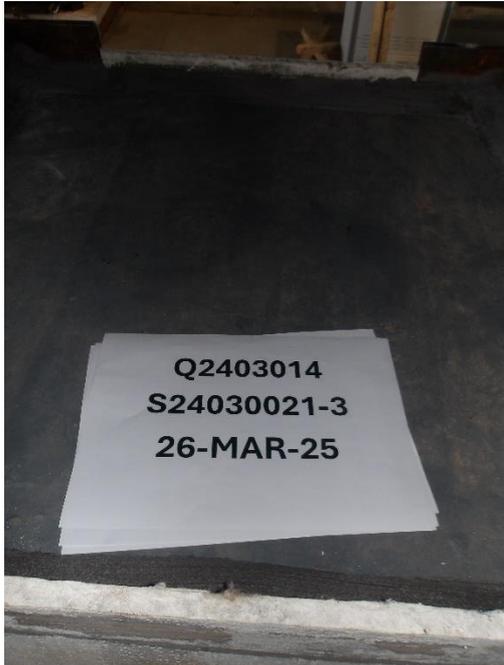


Post Test Picture



Stage 2 – S24030021-3

Pre-Test Specimen Picture

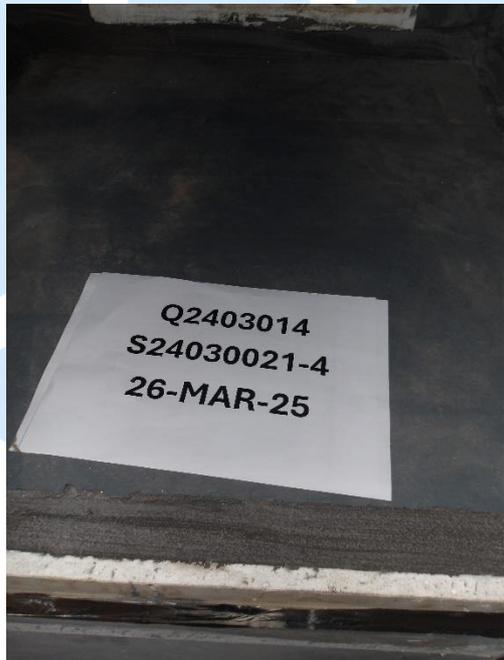


Post Test Picture



Stage 2 – S24030021-4

Pre-Test Specimen Picture



Post Test Picture

