

## COMBINED FIRE CLASSIFICATION EVIDENCE PACK – BALUSTRADE AND JULIETS

### 1. Introduction

This document consolidates the fire classification evidence for the aluminium **balustrade and Juliet systems**, including Aerofoil, Orbit, Orbit Privacy, Aerofoil Infinity, SG12, Milano, Aerofoil Juliet, Orbit Juliet, Frameless Juliet.

The purpose of this pack is to provide a single, comprehensive source of fire-classification documentation for use by Building Control Bodies, Warranty Providers, Approved Inspectors, Principal Designers, and Principal Contractors.

The evidence presented demonstrates that all **primary components used within the balustrade and Juliet systems** meet the required levels of non-combustibility or limited combustibility for balcony edge protection, guarding, and Juliet guard applications under current UK regulations.

### 2. System Overview

This evidence pack covers the following systems:

- Aerofoil Balustrade System
- Orbit Balustrade System
- Aerofoil Infinity Balustrade System
- Orbit Privacy Balustrade System
- SG12 Structural Glass Balustrade System
- Milano Systems
- Aerofoil Juliet
- Orbit Juliet
- Frameless Juliet
- Glass Gate

The fire performance of these Balustrade and Juliet systems has been evaluated against the following standards:

- **EN 13501-1** – Fire Classification of Construction Products  
(Assessment of combustibility, smoke generation, and flaming droplets. Relevant classes include A1 and A2-s1,d0.)
- **EU Decision 96/603/EC**  
(Automatic A1 classification for non-combustible materials such as aluminium and glass, including coated aluminium.)

- **EN 12150-2 & EN 14449**  
(Applicable to toughened and laminated safety glass used in balustrades and Julietts.)
- **UK Building Regulations – Approved Document B**  
(Fire performance requirements for materials used in external balustrades, guarding, and Juliet balconies, including buildings over 11 m in height.)

### 3. Glass Fire Classification Evidence

All glass used within the Balustrade and Juliet systems is toughened glass tested in accordance with the relevant European standards. Laminated glass types are certified as **A2-s1,d0**. The monolithic safety glass types are classified as **A1 non-combustible** in accordance with **EN 13501-1** and **EU Decision 96/603/EC**, which automatically assigns A1 to inorganic, non-combustible glass products.

Certification for laminated toughened glass is provided below. Evidence is **not required** for monolithic A1 glass types, as they are inherently non-combustible and covered by the A1 exemption.

#### 1. 10 mm Monolithic Toughened Glass

Construction	: Single toughened safety glass pane
Thickness	: 10 mm
EN 13501-1 Classification	: <b>A1 (non-combustible)</b>

#### 2. 12 mm Monolithic Toughened Glass

Construction	: Single toughened safety glass pane
Thickness	: 12 mm
EN 13501-1 Classification	: <b>A1 (non-combustible)</b>

#### 3. Pyroguard T-EW / 11.5 mm

Construction	: Laminated, thermally toughened
Thickness	: 11.5 mm
EN 13501-1 Classification	: <b>A2-s1,d0</b>

#### 4. Pyroguard T-EW / 13.5 mm

Construction	: Laminated, thermally toughened
Thickness	: 11.5 mm
EN 13501-1 Classification	: <b>A2-s1,d0</b>

#### 5. Pyroguard T-EW / 21.5 mm

Construction	: Multi-layer laminated, thermally toughened
Thickness	: 21.5 mm
EN 13501-1 Classification	: <b>A2-s1,d0</b>

#### 6. Pyroguard T-EW / 25.5 mm

Construction	: Laminated, thermally toughened
Thickness	: 25.5 mm
EN 13501-1 Classification	: <b>A2-s1,d0</b>

Refer below links to view,

The declaration of Performance of T-EW/11.5 –

[https://www.balconette.co.uk/content/uploads/a72ced90-8d4d-4a41-99f6-695b42c1fa81/dop\\_en\\_203-t-ew-11.5.pdf](https://www.balconette.co.uk/content/uploads/a72ced90-8d4d-4a41-99f6-695b42c1fa81/dop_en_203-t-ew-11.5.pdf)

The declaration of Performance of T-EW/13.5 –

[https://www.balconette.co.uk/content/uploads/3f780dcd-26de-4780-b8c6-6a8bfa45caf0/dop\\_en\\_204-t-ew-13.5.pdf](https://www.balconette.co.uk/content/uploads/3f780dcd-26de-4780-b8c6-6a8bfa45caf0/dop_en_204-t-ew-13.5.pdf)

The declaration of Performance of T-EW/21.5 –

[https://www.balconette.co.uk/content/uploads/3aa0db58-21b4-4405-9399-b6f448cd2451/dop\\_en\\_206-t-ew-21.5.pdf](https://www.balconette.co.uk/content/uploads/3aa0db58-21b4-4405-9399-b6f448cd2451/dop_en_206-t-ew-21.5.pdf)

The declaration of Performance of T-EW/25.5 –

[https://www.balconette.co.uk/content/uploads/537abede-d281-4ea5-8b14-4d969992c6fe/dop\\_en\\_208-t-ew-25.5.pdf](https://www.balconette.co.uk/content/uploads/537abede-d281-4ea5-8b14-4d969992c6fe/dop_en_208-t-ew-25.5.pdf)

The Pyroguard - Fire Classification report –

<https://www.balconette.co.uk/content/uploads/db63036f-6f7d-4425-9b66-e0537e9f2e2a/19-19491-1009-2-m6-pyroguard.pdf>

#### 4. Aluminium Component Evidence and Powder Coating Evidence

All aluminium components used within the **balustrade, Juliet, and gate systems**—including posts, base plates, sleeves, handrails, bottom tracks, glazing beads, infill profiles, gate components, and fixing accessories—are manufactured from **EN AW-6060 T6 or EN AW-6063 T6** architectural-grade aluminium alloys.

These alloys are classified as **Euroclass A1 non-combustible** in accordance with EU Decision 96/603/EC and therefore do not contribute to fire growth or spread under EN 13501-1.

##### **Powder Coating System:**

The aluminium components are finished using architectural polyester powder coating designed for external, high-UV environments.

Powder Type : Interpon D2525 Texture ISR (Super Durable Polyester)

Fire Classification of Coating : **A2-s1,d0**

Durability Classification : Qualicoat Class 2

Technical Datasheet of Interpon D2525 Texture ISR (Super Durable Polyester) are available in below link:

[https://www.balconette.co.uk/content/uploads/217e202f-0550-4204-b11e-3ef7b7a8c449/emea\\_tds\\_interpon-d2525-texture-isr\\_v5\\_en.pdf](https://www.balconette.co.uk/content/uploads/217e202f-0550-4204-b11e-3ef7b7a8c449/emea_tds_interpon-d2525-texture-isr_v5_en.pdf)

Refer below link to view the Alloy data sheet of EN AW-6060 T6 AND EN AW-6063:

<https://www.balconette.co.uk/content/uploads/97bdd6ba-476b-452f-9087-42ea8041fca2/aluminium-alloy-6060-and-aluminium-alloy-6063---material-datasheet.pdf>

## 5. Steel Components evidence (A1)

All steel components incorporated within the Balustrade and Juliet systems:

- Are manufactured from **A1-classified metallic materials**
- Contain **>99% metallic content** (see below ISO 3506 Composition Datasheet)
- Comply with EU Decision 96/603/EC (A1 classification of metals)
- Do not require additional fire testing or certificates under EN 13501-1
- Are fully compliant with the fire-safety requirements of Approved Document B for materials used in external balcony and balustrade systems

Refer below link to view the ISO 3506 composition data sheet:

[https://www.balconette.co.uk/content/uploads/16778afe-3c18-48d5-a5ec-43adde210c9c/fasteners-datasheet\\_iso-3506-1\\_2020\\_.pdf](https://www.balconette.co.uk/content/uploads/16778afe-3c18-48d5-a5ec-43adde210c9c/fasteners-datasheet_iso-3506-1_2020_.pdf)

## 6. Fasteners (A1)

All A2 Stainless Steel (AISI 304 Equivalent) and A4 Stainless Steel (AISI 316 Equivalent – Marine Grade) fasteners used in the system are manufactured in accordance with ISO 3506-1/3506-2. These alloys consist of more than 99% metallic content (Fe, Cr, Ni, Mo) and contain no organic or combustible compounds. Under EN 13501-1 and EU Decision 96/603/EC (A1 classification of metallic materials), stainless-steel fasteners are inherently classified as **A1 non-combustible** and do not require further fire testing.

## 7. Ancillary Components (Exempted)

The gaskets, packers, fixings, sealants and minor non-structural components used within the **Balustrade, Juliet and gate systems** are ancillary components, fall squarely within the permitted exemptions of Approved Document B (Fire Safety). These elements are present only in minimal quantities, serve essential functional purposes (such as isolation, spacing, drainage and tolerance adjustment), and are not part of any load-bearing or primary structural element.

As such, they do not require independent fire-classification evidence and are fully compliant with the allowances set out in Approved Document B for ancillary components within balcony and external wall systems.

## 8. Combined Component Classification Summary

Component	Application	Evidence Provided	Classification
<b>Aluminium Balustrade Profiles and Accessories</b>	Balustrades and Juliets	EN AW-6060 / 6063 alloy datasheet; EU Decision 96/603/EC	<b>A1</b>
<b>Steel Components (Brackets, steel posts, connectors)</b>	Balustrades and Juliets	Material datasheet confirming >99% metallic content; EU Decision 96/603/EC	<b>A1</b>
<b>Powder Coating</b>	Balustrades and Juliets	Technical Datasheet	<b>A2-s1,d0</b>
<b>Glass – Laminated Toughened (Pyroguard)</b>	Balustrades and Juliets	Declaration of Performance + EN 13501-1 Test Report	<b>A2-s1,d0</b>
<b>Glass – Monolithic Toughened</b>	Balustrades and Juliets	Toughened Safety Glass Statement (EN 12150-2)	<b>A1</b>
<b>Stainless Steel Fasteners</b>	All systems	ISO 3506-1 / 3506-2 Composition Datasheet	<b>A1</b>
<b>Ancillary Components (Gaskets, Packers, Isolation Pads)</b>	Balustrades and Juliets	Exempt under Approved Document B (Ancillary Components)	<b>Exempted</b>