

Fire Rated Secondary Glazing

Technical Data Sheet



**Shown above is a secondary window
from our 'Heritage' range**

Product Description

Our Fire Rated Secondary Glazing is primarily used for commercial and residential applications, to provide up to 120-minutes fire protection without the need to remove primary glazing. Our secondary glazing can accommodate square, arched and gothic-style openings to maintain the original look of the building.

Advantages

Our 'Heritage' range offers slender profiles so that the window does not detract from the building's existing appearance. This is ideal for listed buildings in order to maintain the integrity and originality of the building, whilst offering fire protection to meet the Health & Safety Executive's standards.

Features

- Certificated solution available in single and multiple combined units for new or existing windows.
- PPC or Anodised factory applied finishes in a wide range of RAL colours.
- Glass can be removed or opened on hinges for cleaning and maintenance of existing windows.

Areas of Application

- Listed, Heritage and Historic Buildings
- Residential Buildings
- Libraries
- Schools and Educational Institutes
- Data Centres and Testing Facilities
- Office Buildings
- Hospitals
- Airports
- Laboratories
- Hotels
- Apartments
- Museums and Galleries
- Factories

Fire Rated Systems Explained

Fire Rated Frame and Glass Systems are designated both by the type of fire protection that is offered and also the length of time that it is required to protect against the fire. Generally, they fall into the below categories:

Integrity Only

E15, E30, E45, E60, E120 – ‘E’ refers to fire integrity and the number is the time in minutes. This is the amount of time a window can protect before a fire can pass through.

Integrity & Insulation

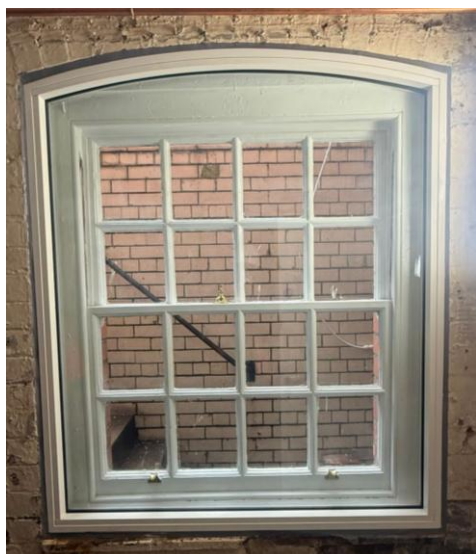
EI15, EI30, EI45, EI60, EI120 – ‘EI’ refers to fire integrity and insulation with the number in minutes. Insulation refers to the ability to limit heat transferring to the other side, important in locations with higher footfall.

Integrity & Radiation

EW15, EW30, EW45, EW60, EW120 – ‘EW’ refers to fire integrity and insulation with the number in minutes. Radiation refers to the reduction in radiant heat transfer to the non-exposed side.

Specification

PROFILE	
✓	Both steel and aluminium systems available
✓	Our ' Heritage ' range has slender profiles and slim sightlines to maintain the appearance of the existing window
✓	Unique shapes and sizes can be accommodated
✓	Both fixed and hinged secondary windows available
FINISHES	
✓	Factory PPC finish in a chosen RAL colour as standard
✓	Special finishes available upon request
AVAILABLE SIZES	
✓	Certificated up to 4-metres in length as a single pane
✓	The product can combine multiple units to provide an indefinite width and height
CERTIFICATIONS	
✓	Certifire document is available to satisfy compliance and Health & Safety (HSE) requirements
✓	We offer installation to provide a complete, certificated, supply and install package to comply with Fire Officer requirements
THERMAL PROPERTIES	
✓	Thermally broken systems available
INSTALLATION & MAINTENANCE	
✓	O&M Manuals provided upon completion
✓	Ongoing maintenance and cleaning instructions provided
✓	Installation kits provided for supply only or complete installation package available



'Heritage' Range

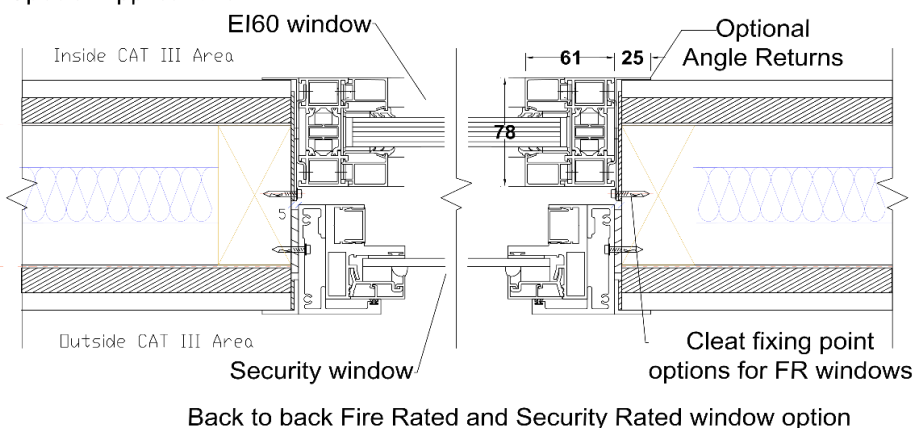
The 'Heritage' range of window profiles offer the perfect combination of performance and discreet sight lines. This system is regularly specified for use in many buildings which require slender unobtrusive secondary glazed fire windows and also many listed buildings.

It is certificated with all types of fire glass from well known manufacturers such as Saint Gobain, Pilkington, Pyroguard others. It is available in a full range of RAL PPC finishes

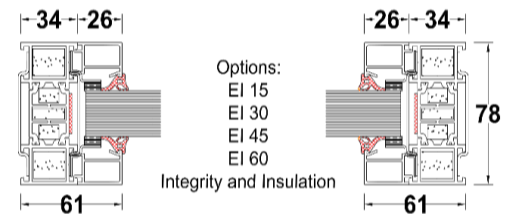
Shown below is the 'Heritage' Fire Rated Window System used in conjunction with LPCB security rated windows to provide security and fire protection within laboratories and other high security and sensitive areas. It is available in 3 frame widths to offer further flexibility when matching up to security, ballistic or blast windows:

- 61mm
- 71mm
- 81mm

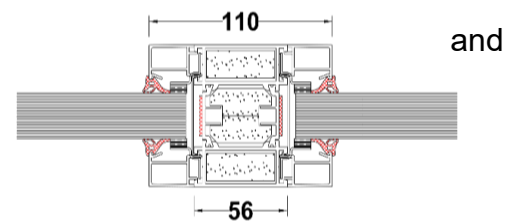
Special Applications:



'Heritage' Aluminium Profile



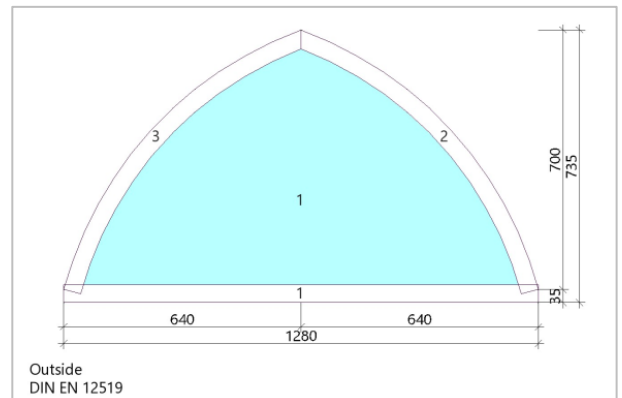
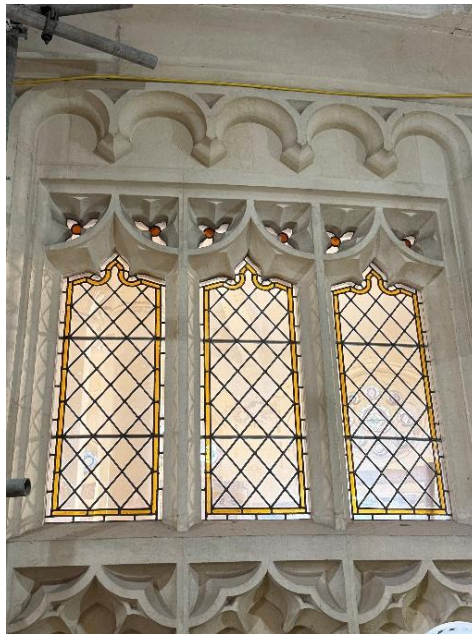
'Heritage' Aluminium Profile Options



Unique Shapes & Sizes

As is the case with many traditional, listed and heritage buildings, a large proportion of windows have compound curves and unique shapes. We offer secondary glazing with frames to complement the existing window and to match this as closely as possible in order to retain the original look of the window.

Our 'Heritage' range is very popular with architects working on listed buildings with more bespoke, unique and 'gothic'-style windows.



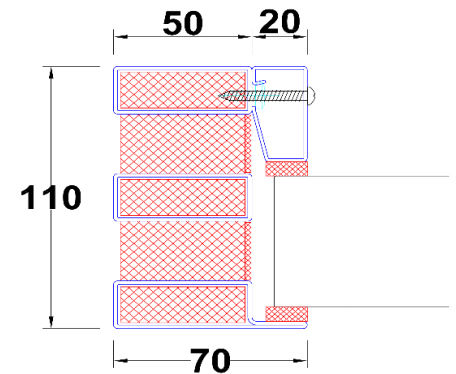
Sample Drawing

Steel Fire Rated Window Systems

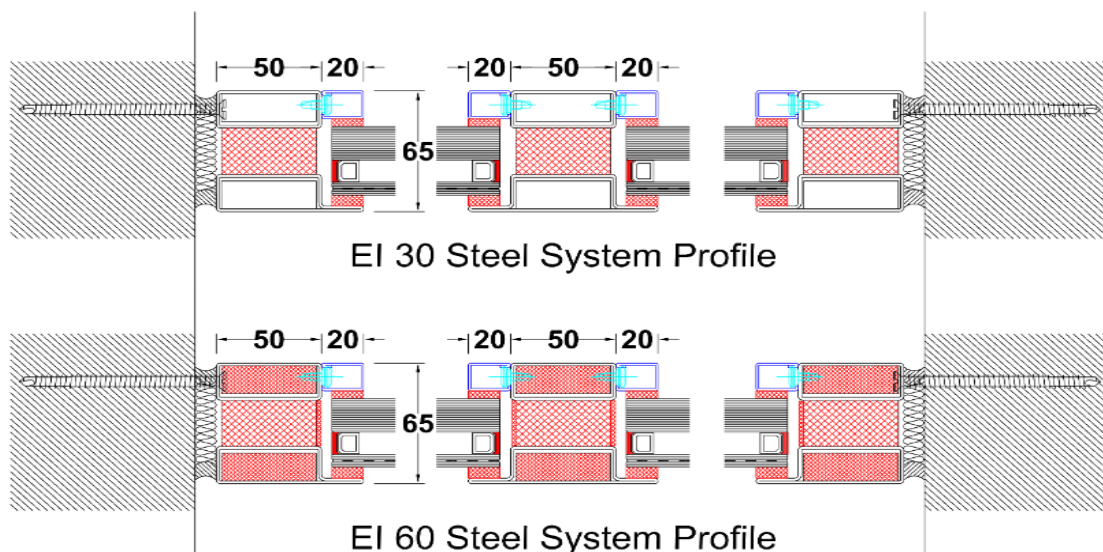
Steel fire rated windows offer up to 120 minutes of fire protection and offer a further range of sightlines to match existing primary windows.

As can be seen this document, there are several options in terms of frame profiles and widths and combining these with different glass thicknesses and properties, we can achieve a wide range of performance and visual products.

As shown below, we can effectively create a unit indefinite in length in order to meet the width and height requirements.



EI 120 Steel Profile



Hinged Opening Casements

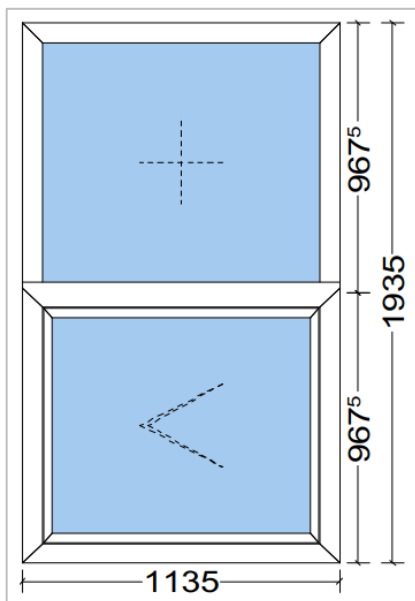
We can also offer a hinged, opening window as a certificated solution. Whereas with fixed windows, the glass has to be removed for cleaning and maintenance, our hinged alternative allows easy access to both the existing primary window and inside of the secondary.

Fire ratings of EI30 and E60 can be achieved with this system, and it is also available as a non-fire rated system with varying sightlines.

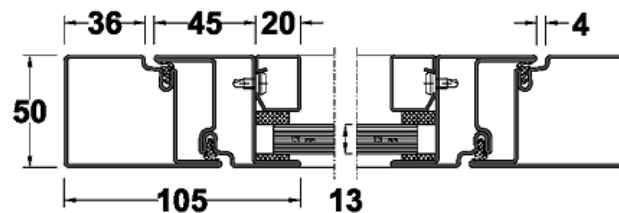
Advantages

A hinged secondary window provides easy access to the primary window to allow for ventilation and air exchange.

The varying frame width also allows the window to complement and match the existing sightlines already in place with the primary window.



Sample Drawing



**Hinged Centre Opening
EI 30 Steel System Profile**

Approval Drawings are provided prior to manufacture and As-Built Drawings on completion.



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**Blast and Ballistics Profile 1 Heavy Duty / Security
Secondary Glazing System**

- A heavy duty fixed frame unit which provides blast protection to C25 (100kgs @ 25m) and forced entry to levels SR1 and SR2.
- The frame can be shaped or curved to a full circle
- 20mm glass edge cover
- Concealed room side fixing channel
- Rectangular frames may be linked with a colour matched aluminium transom section
- Standard colour semi gloss white
- All standard RAL colours PPC and woodgrain/anodised also available to customer specification

Gazing Options:

Glass: 6mm thick – 12.04mm thick

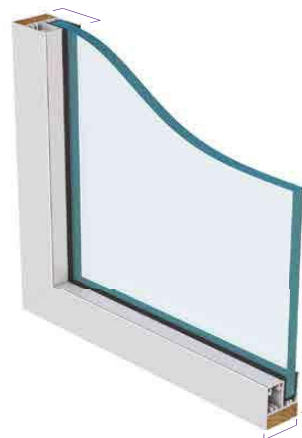
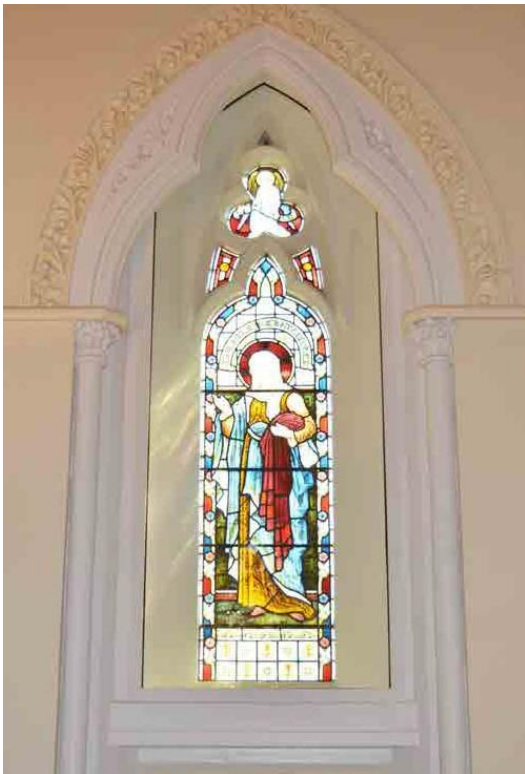
Frames: Curved head, jamb or full circle – minimum radius of 500mm

Dimensions:

Maximum Recommended Frame sizes:

Fixed Pane 2000mm wide x 3000mm high

Minimum dimensions – 300mm wide x 300mm high



Frame Dimensions: 36mm front to back x 43mm high



Blast and Ballistics Profile 2 Heavy Duty / Security Secondary Glazing System

- A heavy duty demountable frame unit which provides blast protection to C25 (100kgs @ 25m) and forced entry to levels SR1 and SR2.
- The frame can be shaped or curved to a full circle
- Glazed panels are attached with machine screws to permit occasional removal for cleaning and maintenance
- 20mm glass edge cover
- Fixings concealed within the frame
- Frames can be coupled vertically or horizontally
- Standard colour semi gloss white
- All standard RAL colours PPC and woodgrain/anodised also available to customer specification

Gazing Options:

Glass: 6mm thick – 12.04mm thick

Frames: Curved head, jamb or full circle – minimum radius of 750mm

Dimensions:

Maximum Recommended Frame sizes:

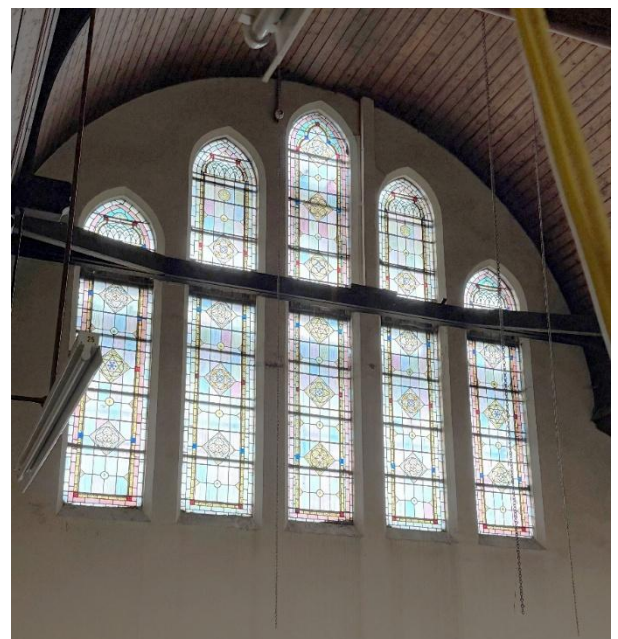
Fixed Pane 2000mm wide x 3000mm high

Minimum dimensions – 300mm wide x 300mm high



Frame Dimensions: 45mm front to back x 48mm high

Special Shapes & Sizes



Installation



To maintain the integrity and performance of a blast product, it is very important to ensure that it is installed correctly. This means that it should be surveyed to allow for enough clearance to fit insulated material and fire mastics around its perimeter, that it is fixed with the appropriate fixings and that the building substrate is suitable to accept the window.



Maintenance and Cleaning

In fixed window applications the glass can be removed for future maintenance and cleaning and opening windows simply opened on their respective hinges