

REA



REA METAL WINDOWS LIMITED (EST 1906)

FiREAct Fire Resistant Steel Doors & Screens (Integrity & Insulated)



GENERAL

Introduction

Rea Metal Windows specialises in purpose-made steel framed glazing systems, including the FIREAct range of glazed screens and compatible doors, where fire resistance and a radiant heat barrier are required for 30, 60, 90 or 120 minutes to the stability, integrity and insulation criteria of BS 476: Part 8: 1972 or Part 22: 1987.

Fixed lights & glazed doors screens are available for internal application only. Where insulation is not a requirement for fire, the compatible range of **FirebREAk** doors can be specified. **FiREAct** features high impact resistance of a safety glass, improved sound precaution properties from the glazing and robust durability of a welded steel frame construction

Authority:

The windows/doors are manufactured in accordance with the general principles of BS 6510:2010 Specification for steel windows. **REA** operates a Quality Management system which complies with the requirements of BS EN ISO 9001:2008 Certificate No.FM 20449.

Applications

Suitable for internal applications only. The system is appropriate whenever complete fire and radiant heat barrier is to be coming with a maximum daylight and vision. The crisp neat lines enable it to integrate aesthetically with the adjacent no-fire rated aluminium frame systems practically in:

Atrium walls / Escape route protections walls i.e. corridors and staircases / Partition walls

DESCRIPTION

Composition

The frame material is a composition of 20mm x 50mm precision tubular steel profiles sandwich with a dense mineral fibre board as follows:

Glazing beads up to 30mm high and glazing platforms up to 66mm wide can be provided

Manufacture

The steel profiles are welded into frames using metal inert gas techniques. All welds are carefully dressed and significant welded surfaces ground smooth. Alternatively, they can be spigot jointed for assembly on site.

Protection and finish

Rust proofed by shot blasting and zinc spraying the profiles in accordance with BS EN22063: 1994, followed by a matt stoved polyester coating to BS 6497 in a colour selected from our standard colour chart.

Glazing

Multi-laminated fire resistant glass, such as Pilkington's Pyrostop or Glaverbel's Pyrobel, incorporates transparent interlayer's of intumescent material which, on exposure to fire expand and produce an opaque shield that prevents the transmission of radiant conductive heat, avoiding the danger of ignition of combustible materials on the side away from the fire. As the transmission of radiant heat is reduced, fire fighters can get closer to the seat of the fire and the safer passage is provided along escape corridors protected by the FiREAct glazing system. As the intumescent interlayer's are susceptible to degradation from ultraviolet light, or heat in excess of 40 degrees C, they must be protected in external applications by a UV filter laminate.

Thermal insulation

Multi-laminated fire resistance glass can also be incorporated into double glazing units where there is an additional requirement for improved 'U' value.

The glass is gripped in ceramic fibre tape, capped with silicone sealant, and is retained by steel channel beads which snap over concealed steel studs.

Dimensions

Continuous runs of glazing can be achieved limited by the maximum tested pane size and appropriate fixings.

Appearance

Framing presents crisp, neat lines and smooth flush surfaces.

Fire

When tested to BS 476: Part 8 and assessed to BS 476: Parts 20 and 22 the following fire insulation was achieved for 30, 60, 90 or 120 minutes.

SITWORK

Handling and Storage

Factory finished framing is despatched with corrugated cardboard wrapping. It must be unloaded, handled and stored with care on level battens in a clean, dry place. Glass must also be stored in dry conditions, stacked upright and fully supported to prevent sagging. It is important to protect the intumescent interlayer's from damp, from ultra violet, and from temperatures in excess of 40 degrees C.

Fixing and Glazing

As a precision engineered product, **FiREAct** needs accurate, plumb, straight, square openings. Screening, framing can be delivered in bar form, mullions are erected first, screw fixed through plates top and bottoms, and then the transoms are spigot jointed between.

Glass is installed on site, using mineral fibre tape capped with the silicone sealant. Colour matched beads are pre-cut to fit the frames and need care in storage and application to avoid loss or damage.

SERVICES

Sales and technical For advice please contact the sales office at the address below.

Installation The Company recommend the supply, installation and glazing service for the satisfactory performance of the system.

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