SYSTEM GUIDE

FIRE RESISTANT GLASS & GLAZING SYSTEM

GLASS-COMPOSITE FIRE RESISTANT DOORSET
EI 60
DESCRIPTION

Fire resistant doorsets used as a part of passive fire protection system to reduce the spread of fire or smoke between compartments and to enable safe egress from building or structure.

The door leaf is installed into a fire-rated frame, complete with its ‘essential ironmongery’ to make the door perform correctly in the event of a fire. The door is tested as a complete assembly or doorset, and can only work correctly if installed using the same compatible/approved components as when it was tested, i.e. closers, handles, locksets and etc.

As a certified fire resistant doorset, it must be self closing and self latching as stated under UBBL. It must be listed under SIRIM Product Certification Scheme and tested under MS1073:Part 3:1996.

AVAILABLE RANGE

Pyrofire (M) Sdn. Bhd. has developed Malaysian first 1 hour rating fully insulated glass-composite fire resistant doorset, in which tested, approved and certified by local fire authority, FRDM.

CERTIFICATION

Pyrofire (M) Sdn. Bhd. glass fire resistant doorset are fully tested and certified under: -

MS 1073: Part 3: 1996 (Amd. 01)

TERMINOLOGY

Integrity (E)
The ability of a specimen of a separating element to contain a fire to specified criteria for collapse, freedom from holes, cracks and fissures and sustained flaming on the unexposed face.

Insulation (I)
The ability of a specimen of a separating element to restrict the temperature rise of the unexposed face to below specified levels.

Temperature rise on the unexposed fire side shall not be more than 140°C (average value) or 180°C (maximum individual value) above ambient temperature.

Stability (S)
Structure able to remain standing without collapse within specific period.

FEATURES & BENEFITS

Fire Resistance
Ability to resist fire to penetrate to adjacent compartment within specific period of time.

Impact Resistance
Ability to withstand levels of impact forces up to Class A or 1(B)1 according to BS 6206 and EN 12600 respectively.

Heat Barrier
Reduce radiant and conductive heat transfer and fully insulated in the event of fire.

Pre-Hung System
Glazing systems are designed to be pre-hung system and pre-fabricated in factory to ensure quality with QC and QA team.

Ease of Installation
Glazing systems is designed and built to reduce hassle on installation onto various field of applications/ wall types.

Environment Friendly
Preserving our mother earth, green material in used to reduce carbon footprint.

Weather Resistance
Material in used able to withstand exposure to weather without damage/ mold.

Termite Resistance
Composite based material in used prevents humidity especially termite attack.

Smoke Control
Smoke seal is available to contain smoke for exposure risk to occupants.

Acoustic Control
Sound reduction to reduce transfer of sound wave up to 44 dB.

Greater Visibility
The use of glass enlarge the area for viewing and provide better visual appeal with non-wired and extra clear glass.

WARRANTY

Pyrofire (M) Sdn. Bhd. warrants the glazing system will be free of manufacturing defects in material and workmanship for a period of one (1) yeas from the date of its original installation.
FIRE RESISTANT GLASS
Pilkington Pyrostop®

DESCRIPTION

In the event of fire, Pilkington Pyrostop® provides protection against spread of fire and limitation of fire damage. Additional benefit that the opaque insulating interlayer blocks out the fire which minimises panic, and acts as a pointer and indicate the presence of fire on the other side.

Pilkington Pyrostop® fire resistant glass is formed by multi-layer intumescent laminated with Pilkington Optiwhite™ special white glass to optimize transparency. With the intumescent laminated layers, it able to resists thermal shock caused by sprinklers and hoses.

Pilkington Pyrostop® BEHAVIOUR DURING FIRE

Initial of Fire Test

Starting of fire test by firing up the furnace.

After 2-3 minutes

Interchanging of interlayer due to heat and transformation into opaque insulating layer.

After Intumescence

Opaque insulating layer formation which creates a barrier against heat, smoke and flames as well as minimizes panic.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Type</th>
<th>Fire Resistance Category</th>
<th>Supply Form</th>
<th>Glass Thickness, approx. mm</th>
<th>Thickness Tolerance, mm</th>
<th>Light Transmittance, TL, approx. %</th>
<th>Weight, approx. kg/ m²</th>
<th>Sound Reduction, Rw, approx. dB</th>
<th>U₂ Value, approx. W/m²K</th>
<th>Impact Safety Rating acc. to BS 6266</th>
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FIRE RESISTANT GLAZING SYSTEM
GLASS-COMPOSITE FIRE RESISTANT DOORSET
1 HOUR RATED

DESCRIPTION
Glazed glass-composite fire resistant door incorporating green composite board system, profiled aluminum door frame and associated approved hardware.

HOW TO SPECIFY
Door to be Glass Composite Fire Resistant Door, 50mm thick, -/60/60 FRL, incorporating Pilkington Pyrostop® multi-layers laminated fire resistant glass, mounted in integrated 50mm fire resistant door frame, with prime painted or decorative sheet finishes, incorporating certified ironmongery/ door hardware as required. In which tested, approved and certified by fire authority, FRDM.

APPLICATIONS
Ideals for one (1) hour or two (2) hours fire rating wall and applications where full fire insulation together with basic protection against flam and smoke which required by local fire authority while providing better visual experience with higher quality through vision with glass transparency. Especially for fire escapes in residential, commercial, hospitals, schools, luxury residential high rise and etc.

AVAILABLE RANGES

FEATURES
- Fully tested and certified up to 75 minutes integrity and 75 minutes insulation under MS1073: Part 3:1996
- For use in one (1) hour or two (2) hours fire resistant masonry wall, plasterboard stud walls, gypsum panel walls, aerated concrete blocks and wall panels
- Integrated with aluminum lipping, with silicate- based fire seal, bar-type coordinator.
- Nominal Thickness : 50mm x 150mm profile
- Approximated Leaves Weight: 55kg/m2
- Incorporates non-wired Pilkington Pyrostop® multi-layers laminated fire resistant glass with light transmission above 85%.
- Optional enhancement on sound reduction performance with acoustic seal/ drop seal.

MAXIMUM SIZE
Opening : 2200mmW x 2460mmH
Clear Opening : 2100mmW x 2400mmH
Glazed size : 680mmW x 2010mmH per door panel

IRONMONGERY/ HARDWARE

<table>
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<th>Hardware</th>
<th>Brand</th>
<th>Model</th>
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<td>Door Closer</td>
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<td>TS 83</td>
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<td>CY600 Series</td>
<td>Key/ Key Key/ Turn</td>
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