



Fire Resistance

to BS 476: Part 22: 1987

Summary of Performance

Document No. PO / F5

Polar Double Glazed Partitioning System Dry Jointed (No Mullion) Frameless Glass Doorset

This is to confirm that the frameless glass doorset construction of the above partitioning system using **12mm thick Pyran 'S'** glass as detailed in International Fire Consultants Field of Application Report **No. IFCA/05224** (available on request) in conjunction with evidence contained in test report BTC 14102 and summarised in Komfort data sheet **PO2 G.DOR/INST.1, 2, 3 & 4** has been assessed to give 30 minutes fire resistance to British Standard 476: Part 22: 1987.

Integrity
30 minutes

Note

The Polar glass doorset configuration listed below and detailed overleaf are covered by this assessment and summary

Latched, single acting. single doorset (LSASD)

For performance validation of the installed product this Summary of Performance must be accompanied by the signed Contractors Statement



Certificate No FM25967

KOMFORT WORKSPACE

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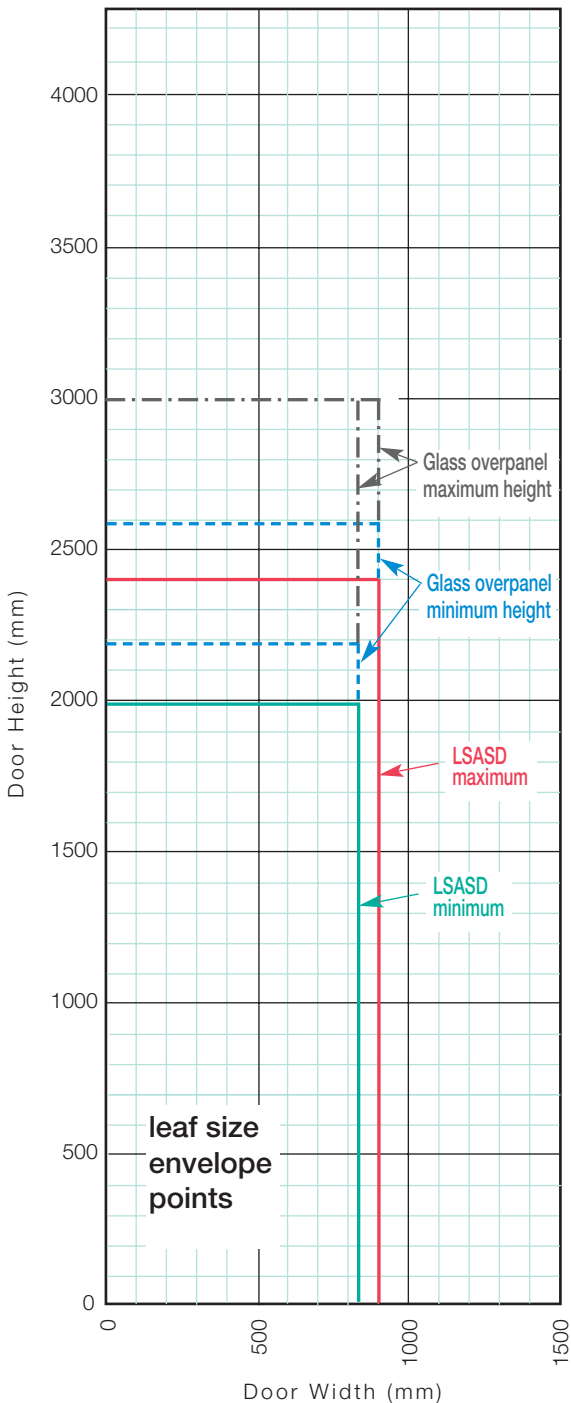
KS207/PO/F5 - 07/12

Summary of Performance

Polar Double Glazed Partitioning System

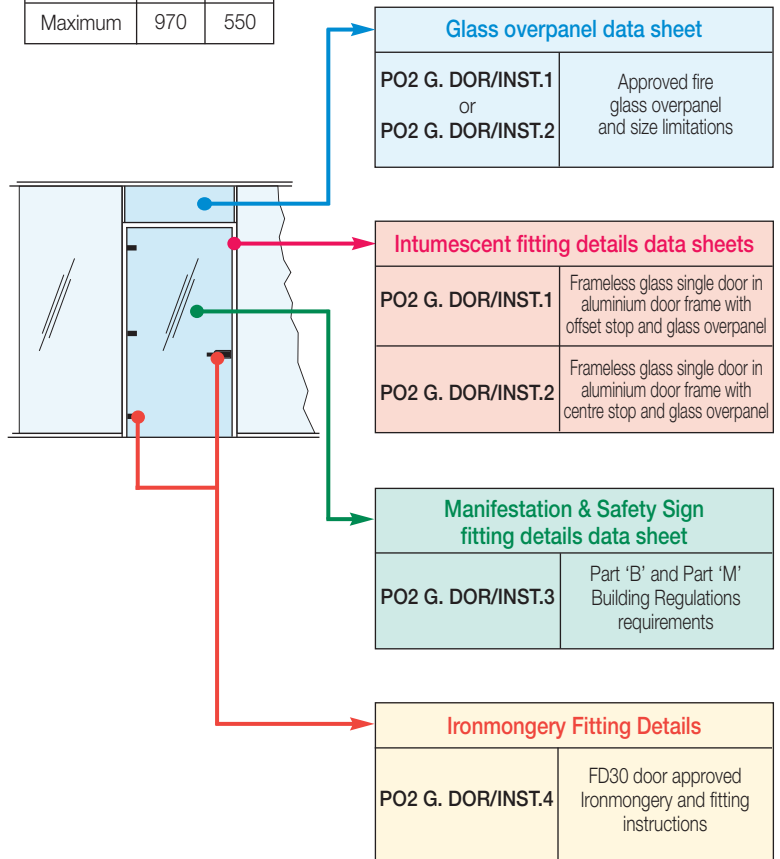
Dry Jointed (No Mullion) Frameless Glass Doorset

Frameless fire safety glass door in aluminium door frame with double glazed overpanels



Door Leaf Size Envelope Points (mm)						
Full Description of Doorset Action	Door Action (Abbreviated)	Maximum Partition Height	Door Leaf Width		Door Leaf Height	
			Minimum	Maximum	Minimum	Maximum
Latched, single acting, single doorset	LSASD	3000	838	900	1981	2400

Glass Overpanel Size (mm)		
Door Height	1981	2400
Minimum	200	200
Maximum	970	550



See Komfort's technical literature or data sheets for full assembly details.

The above data must be read in conjunction with assessment summary description given overleaf.

The information given is an extract of the assessment report supplied by International Fire Consultants, Princes Risborough, Bucks. IFC are specialists in fire safety engineering, with members of staff sitting on BSI, CEN, ASTM and ISO (technical standards committees).



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POLAR partitioning system

Installation Instructions for fire performance double glazed FD30 aluminium door frame with latched single acting single frameless glass door and glass overpanel doorset



Komfort's 'Polar' double glazed system frameless fire safety glass single acting single door and aluminium frame doorset construction has been assessed to meet the requirements of British Standard 476: Part 22: 1987 as described in International Fire Consultants Ltd Assessment Report No. IFCA/05224 based on test evidence contained in the Building Test Centre Report No. BTC 14102.

30 minutes Integrity using
12.4mm thick Komfort intumescent fire safety glass - (glazed o'panel corridor non fire side)
10 or 12mm thick Toughened (class 'A') safety glass (glazed o'panel sacrificial fire side)
12mm thick 'Pyran 'S' - glass door.
 is achieved when constructed using **aluminum door frame DGP26** and all Komfort components as shown within this data sheet.

It is important to ensure that the building structure above and below the glazed screen is capable of accepting the imposed loading and equal in performance.

The choice of 10 or 12mm thick toughened glass is subject to location, height and crowd pressure (line load) requirements of the full height glazed partition screen.

The head channel section (DGP1) above the door is installed within the outer channel (821) that has been bedded on intumescent mastic (DJ10104) and must be installed ensuring all screws and rivets are as detailed and that the door frame base brackets are installed using 38mm long No. 8 countersunk screws. The head section fixings must be staggered at a maximum 400mm centres.

The glass over panel being installed into the DGP1 head channel must be a minimum 200mm high and have a nominal 14mm edge cover.

Installation of the dry joint between the glass overpanel and glazed modules must ensure that the male component (SJ31) is installed on the corridor side and to prevent any ingress of moisture or water the protective edge tapes must not be removed from the 12.4mm thick Komfort insulation glass.

It is important that the glass door and glass overpanel type, size and fitting detail for fixings, ironmongery and intumescent seals remain as tested as products can often exhibit significantly different characteristics which could alter the performance obtained during the test and therefore they must not be considered interchangeable, irrespective of whether the individual product has been tested and dimensions are maintained.

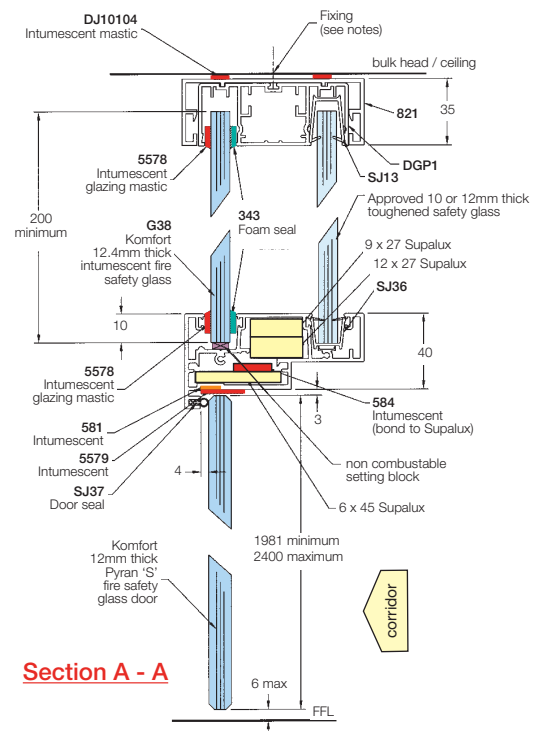
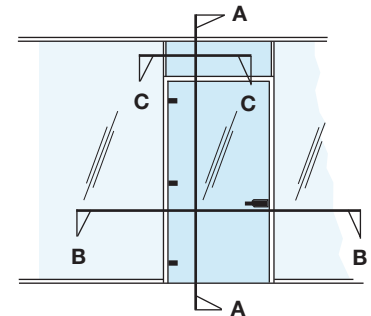
Glass overpanel size calculation

Establish the floor to ceiling height dimension and deduct the door height then deduct a further 56mm for the height. For the overpanel width (glass to glass) establish the door width and add 52mm.

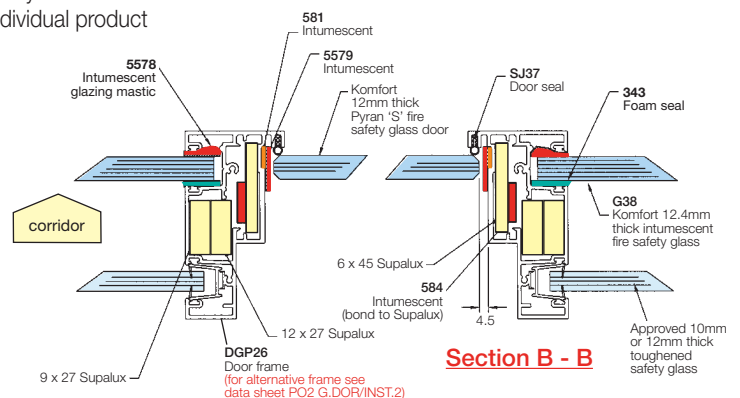
For manifestation and sign details see data sheet PO2 G.DOR/INST.3

For ironmongery details see data sheet PO2 G.DOR/INST.4

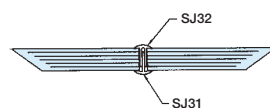
For glazed module assembly details see data sheet PO2 GLA/INST.1



Section A - A



Section B - B



Section C - C
 same joint required on both sides of double glazed (see notes)



POLAR partitioning system

Installation Instructions for fire performance double glazed FD30 aluminium door frame with latched single acting single frameless glass door and glass overpanel doorset



Komfort's 'Polar' double glazed system frameless fire safety glass single acting single door and aluminium frame doorset construction has been assessed to meet the requirements of British Standard 476: Part 22: 1987 as described in International Fire Consultants Ltd Assessment Report No. IFCA/05224 based on test evidence contained in the Building Test Centre Report No. BTC 14102.

30 minutes Integrity using
12.4mm thick Komfort intumescent fire safety glass - (glazed o'panel corridor non fire side)
10 or 12mm thick Toughened (class 'A') safety glass (glazed o'panel sacrificial fire side)
12mm thick 'Pyran 'S' - glass door.
 is achieved when constructed using **aluminum door frame DGP25** and all Komfort components as shown within this data sheet.

It is important to ensure that the building structure above and below the glazed screen is capable of accepting the imposed loading and equal in performance.

The choice of 10 or 12mm thick toughened glass is subject to location, height and crowd pressure (line load) requirements of the full height glazed partiton screen.

The head channel section (DGP1) above the door is installed within the outer channel (821) that has been bedded on intumescent mastic (DJ10104) and must be installed ensuring all screws and rivets are as detailed and that the door frame base brackets are installed using 38mm long No. 8 countersunk screws. The head section fixings must be staggered at a maximum 400mm centres.

The glass over panel being installed into the DGP1 head channel must be a minimum 200mm high and have a nominal 14mm edge cover.

Installation of the dry joint between the glass overpanel and glazed modules must ensure that the male component (SJ31) is installed on the corridor side and to prevent any ingress of moisture or water the protective edge tapes must not be removed from the 12.4mm thick Komfort insulation glass.

It is important that the glass door and glass overpanel type, size and fitting detail for fixings, ironmongery and intumescent seals remain as tested as products can often exhibit significantly different characteristics which could alter the performance obtained during the test and therefore they must not be considered interchangeable, irrespective of whether the individual product has been tested and dimensions are maintained.

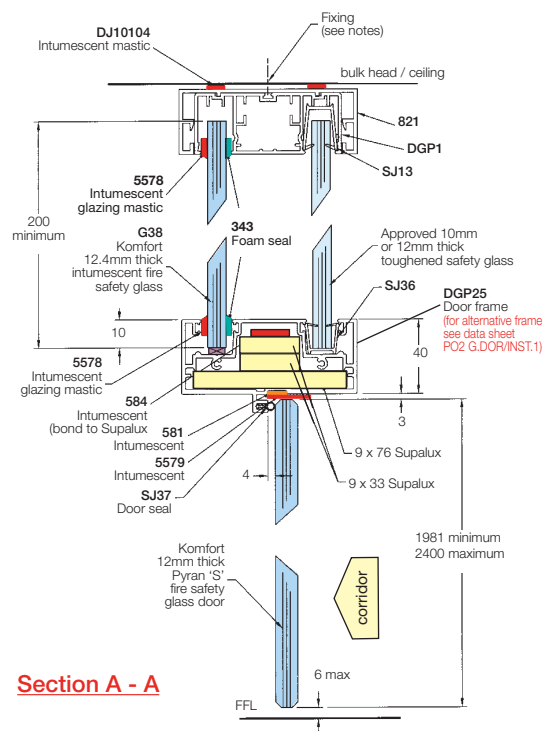
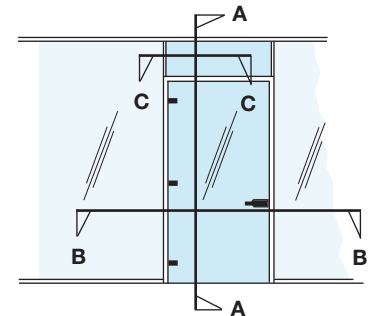
Glass overpanel size calculation

Establish the floor to ceiling height dimension and deduct the door height then deduct a further 56mm for the height. For the overpanel width (glass to glass) establish the door width and add 52mm.

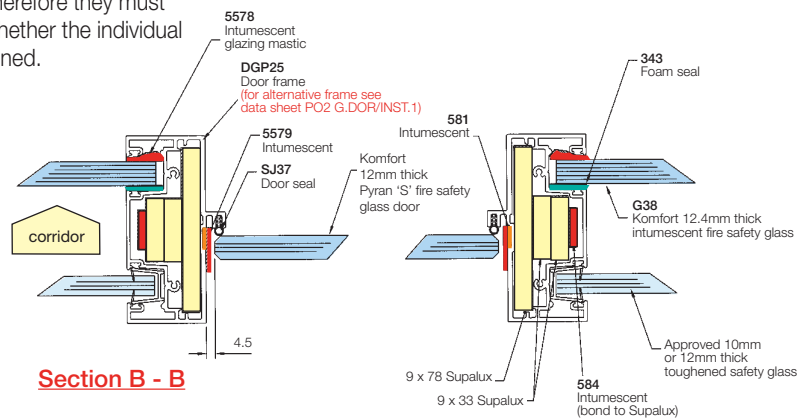
For manifestation and sign details see data sheet PO2 G.DOR/INST.3

For ironmongery details see data sheet PO2 G.DOR/INST.4

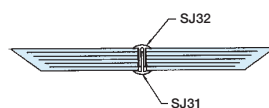
For glazed module assembly details see data sheet PO2 GLA/INST.1



Section A - A



Section B - B



Section C - C
 same joint required on both sides of double glazed (see notes)



POLAR partitioning system

Installation Instructions for fire performance double glazed FD30 aluminium door frame with frameless glass door approved ironmongery



Approved Document 'B' Appendix 'B' of the Building Regulations requires all fire performance doors to be fitted with an automatic closing device (door closer).

DCLG (formerly ODPM) revised guidance May 2005 to Approved Document 'M' Section 2.17a of the Building Regulations requires that **manually operated non-powered entrance doors** and Section 3.10a requires that **Internal doors** where needing to be opened manually have the opening force at the leading edge of the door should not be more than 30N from 0° (the door in the closed position) to 30° open and not more than 22.5N from 30° to 60° of the opening cycle.

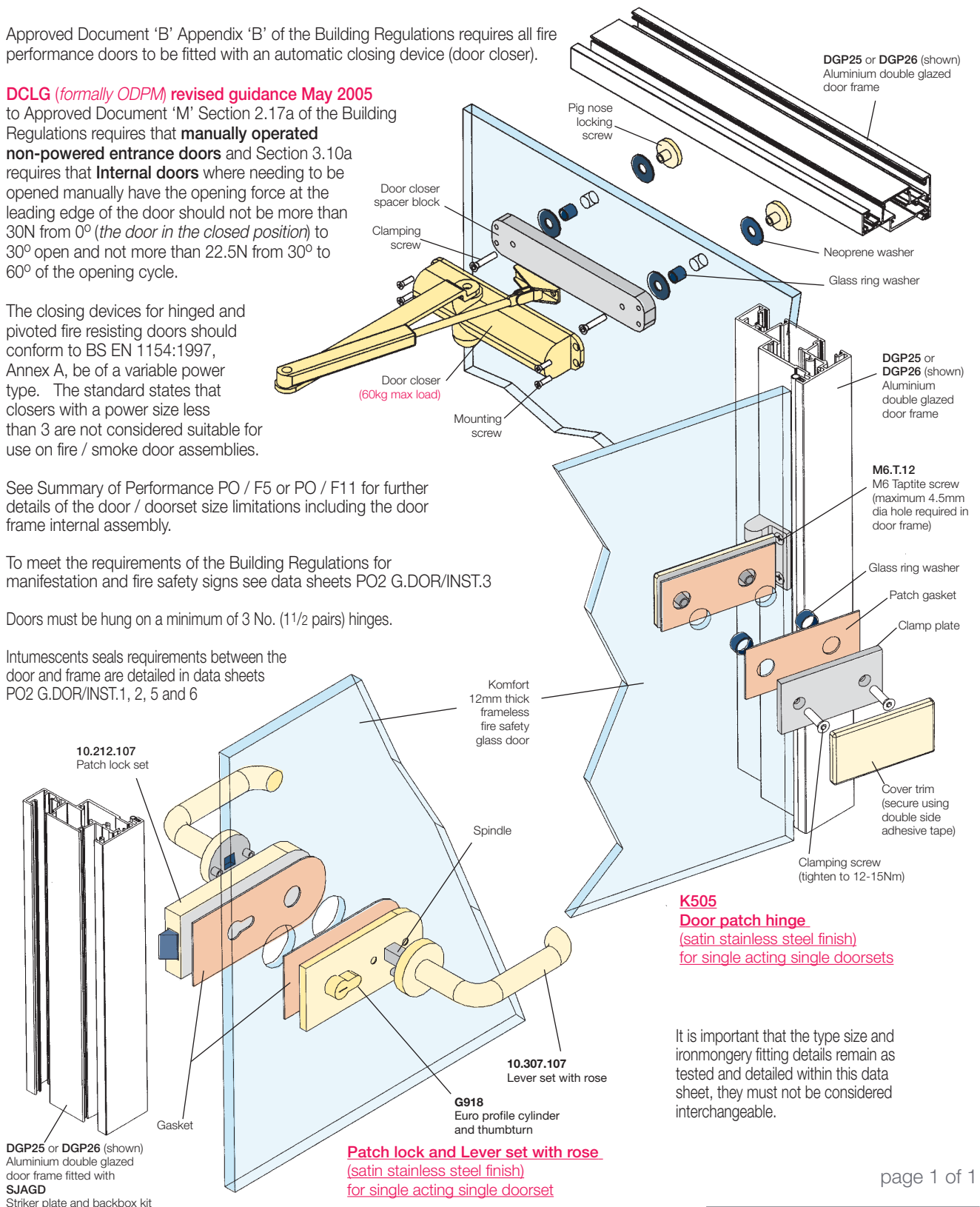
The closing devices for hinged and pivoted fire resisting doors should conform to BS EN 1154:1997, Annex A, be of a variable power type. The standard states that closers with a power size less than 3 are not considered suitable for use on fire / smoke door assemblies.

See Summary of Performance PO / F5 or PO / F11 for further details of the door / doorset size limitations including the door frame internal assembly.

To meet the requirements of the Building Regulations for manifestation and fire safety signs see data sheets PO2 G.DOR/INST.3

Doors must be hung on a minimum of 3 No. (1 1/2 pairs) hinges.

Intumescent seals requirements between the door and frame are detailed in data sheets PO2 G.DOR/INST.1, 2, 5 and 6



It is important that the type size and ironmongery fitting details remain as tested and detailed within this data sheet, they must not be considered interchangeable.



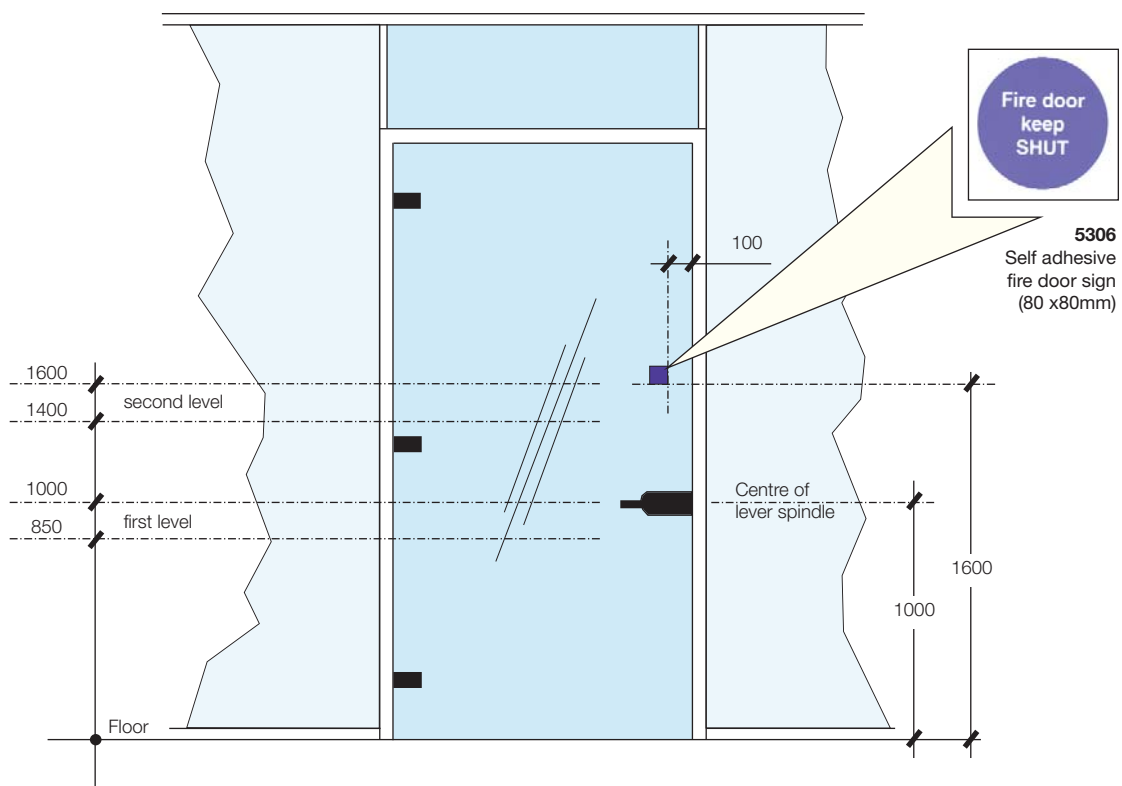
POLAR partitioning system

Installation Instructions for fire performance double glazed FD30 aluminium door frame with frameless glass door manifestation and fire safety sign

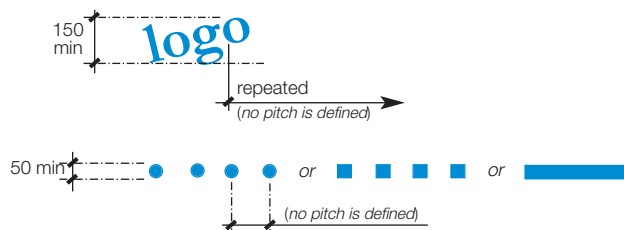


To meet the requirements of Approved Document 'M' of the Building Regulations the glass screen and door must be clearly defined with manifestation on the glass at two levels, 850 to 1000mm and 1400 to 1600mm, contrasting visually with the background seen through the glass (both from inside and outside) in all lighting conditions.

In addition Approved Document 'B' Appendix 'B' of the Building Regulations requires all fire performance doors marked both sides with appropriate fire safety sign complying with BS 5499; Part 1 - *Fire safety signs, notices and graphic symbols, Specification for fire signs*.



Manifestation takes the form of a logo or sign at least 150mm high (repeated if on a glazed screen), or a decorative feature such as broken lines or continuous bands, at least 50mm high:



See Summary of Performance PO / F5 and PO / F11 for further details of the door/doorset size limitations including the door frame internal assembly.

Intumescent seals requirements between the door and frame are detailed in data sheets PO2 G.DOR/INST.1, 2, 5 & 6

For ironmongery fitting requirement details see data sheet PO2 G.DOR/INST.4

