

Fire Resistance

to BS 476: Part 22: 1987

Summary of Performance

Document No. PO / F9

Polar Double Glazed Partitioning System with Timber Door in Aluminium Door Frame

This is to confirm that the doorset construction of the above partitioning system as detailed in International Fire Consultants Ltd Field of Application Report No. **IFCA/05224** (available on request) and summarised in Komfort data sheet **PO2 T.DOR/INST.8, 11, 12, 13, 14 & 15** has been assessed to give up to 30 minutes fire resistance to British Standard 476: Part 22: 1987 based upon tests which achieved the following performance;

Integrity
30 minutes

Note

The Polar double glazed timber doorset configurations listed below are covered by this assessment and summary;

Latched and unlatched, single acting, single doorset (LSASD / ULSASD)

Latched and unlatched, single acting, square edge double doorset (LSADD / ULSADD)

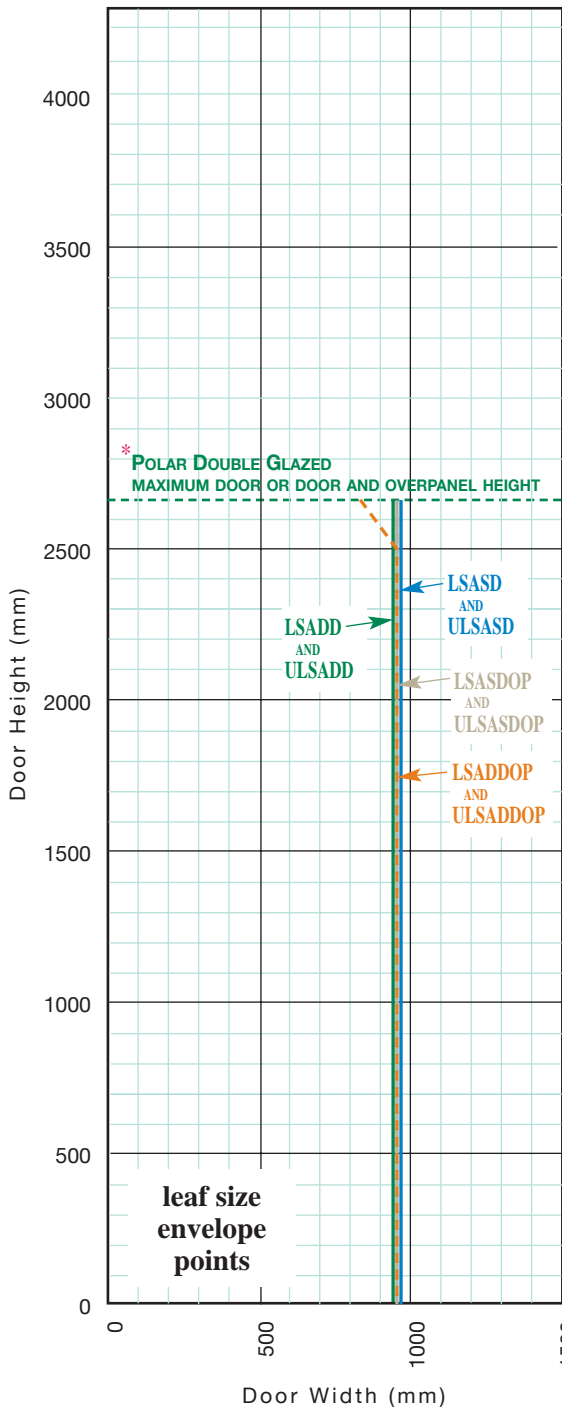
For performance validation of the installed product this Summary of Performance must be accompanied by the signed Contractors Statement



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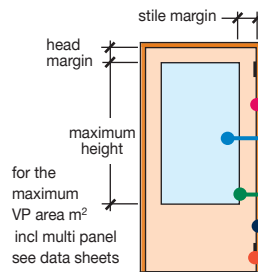
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Summary of Performance Polar Double Glazed Partitioning System with Timber Door in Aluminium Frame (DGP25)



Door Leaf Size Envelope Points (mm)					
Full Description Of Doorset Action	Door Action (Abbreviated)	Maximum Height	Associated Width	Maximum Width	Associated Height
Latched, single acting, single doorset	LSASD	2663*	964		
Unlatched, single acting, single doorset	ULSASD				
Latched, single acting, single doorset with overpanel	LSASDOP	2663*	955		
Unlatched, single acting, single doorset with overpanel	ULSASDOP				
Latched, single acting, double doorset	LSADD	2663*	945		
Unlatched, single acting, double doorset	ULSADD				
Latched, single acting, double doorset with overpanel	LSADDOP	2663*	840	955	2500
Unlatched, single acting, double doorset with overpanel	ULSADDOP				

Minimum Size of Overpanels	
LSASDOP ULSASDOP	250mm high panel from door height selected
LSADDOP ULSADDOP	



The maximum area given applies to the total area of the aperture within each leaf. More than one aperture may be included in each leaf provided that the distance between adjacent apertures is not less than 100mm.

For double doors the maximum area given applies to each leaf individually.

Intumescent Fitting Details	
see data sheet PO2 T.DOR/INST.11	Square edge single and double full height doors in aluminium door frame (DGP25) with glazed both sides
see data sheet PO2 T.DOR/INST.12	Square edge single and double full height doors in aluminium door frame (DGP25) to wall abutment channel (821)
see data sheet PO2 T.DOR/INST.13	Square edge single and double full height doors in aluminium door frame (DGP25) to wall abutment channel (DGP1)

FD30 Vision Panel Approved / Tested Fire Glass	
Glazing Bead Fitting Details and Vision Panel Size Limitations (mm)	
see data sheet PO2 T.DOR/INST.8	FD30 door glazed aperture optional beads, glass and intumescent
<i>Alternative glass products in lieu of those stated should not be used without adequate documentary evidence.</i>	

Aluminium Door Frame Fitting Details	
see data sheet PO2 T.DOR/INST.15	FD30 full height aluminium door frame (DGP25) approved fitting instructions

Ironmongery Fitting Details	
see data sheet PO2 T.DOR/INST.14	FD30 door approved Ironmongery & fitting instructions

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 Ltd, 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 DOUBLE GLAZED PARTITIONING FITTING INSTRUCTIONS
FOR SINGLE ACTING SINGLE & DOUBLE FD30 FULL HEIGHT
TIMBER DOORSETS IN ALUMINIUM DOOR FRAME (DGP25)**

Komfort's 'Polar' double glazed system FD30 single and double full height timber doorset in a aluminium door frame (DGP25) 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 available test evidence.

30 minutes Integrity and 30 minutes insulation is achieved for single acting single and double doors when constructed using all Komfort components as shown within this data sheet.

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

Full height doors and frames are fitted with 1 1/2 pair steel hinges (582). See the Summary of Performance **PO / F9** leaf size envelope for full details of door widths and height limits.

It is important that the doorset and glazing into the door frame fitting detail for the fixings and intumescent seals remain as defined within the assessment and test reports as products can often exhibit significantly different characteristics which could alter the performance obtained therefore they must not be considered interchangeable, irrespective of whether the individual product has been tested and dimensions are maintained.

For full height doors in aluminium frame (DGP25) to wall abutment channel (821) see data sheet **PO2 T.DOR/INST.12**

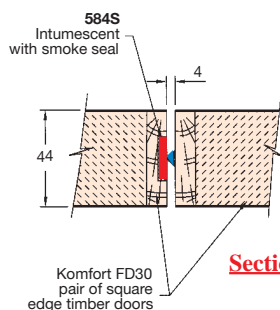
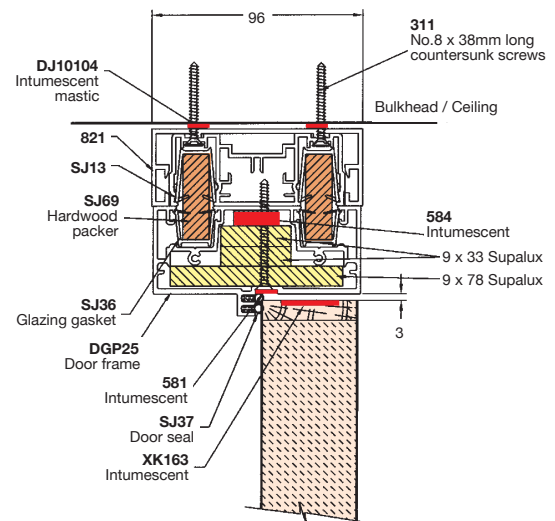
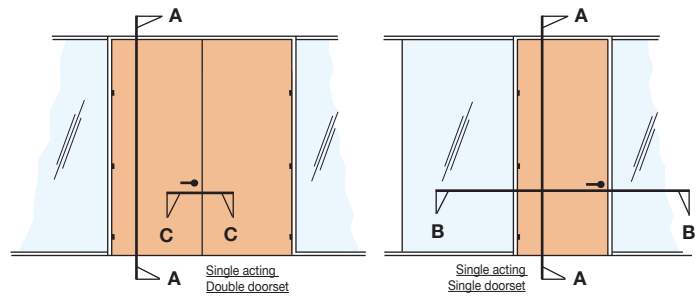
For full height doors in aluminium frame (DGP25) to wall abutment channel (DGP1) see data sheet **PO2 T.DOR/INST.13**

For glazed apertures in the door see data sheet **PO2 T.DOR/INST.8**

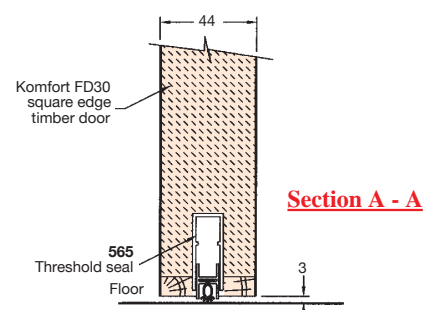
For ironmongery details see data sheet **PO2 T.DOR/INST.14**

For door frame (DGP25) fitting details see data sheet **PO2 T.DOR/INST.15**

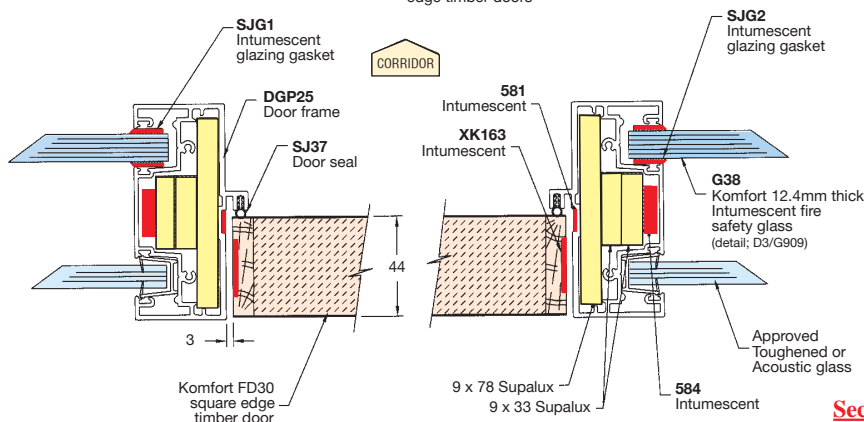
For glazed module assembly details see data sheet **PO2 GLA/INST.1**



Section C - C



Section A - A



Section B - B



**POLAR DOUBLE GLAZED PARTITIONING FITTING INSTRUCTIONS
FOR SINGLE ACTING SINGLE & DOUBLE FD30 FULL HEIGHT
TIMBER DOORSETS IN ALUMINIUM DOOR FRAME (DGP25)**

Komfort's 'Polar' double glazed system FD30 single and double full height timber doorset in a aluminium door frame (DGP25) 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 available test evidence.

30 minutes Integrity and 30 minutes insulation is achieved for single acting single and double doors when constructed using all Komfort components as shown within this data sheet.

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

Full height doors and frames are fitted with 1 1/2 pair steel hinges (582). See the Summary of Performance **PO / F9** leaf size envelope for full details of door widths and height limits.

It is important that the doorset and glazing into the door frame fitting detail for the fixings and intumescent seals remain as defined within the assessment and test reports as products can often exhibit significantly different characteristics which could alter the performance obtained therefore they must not be considered interchangeable, irrespective of whether the individual product has been tested and dimensions are maintained.

For full height doors in aluminium frame (DGP25) with glazed both sides see data sheet **PO2 T.DOR/INST.11**

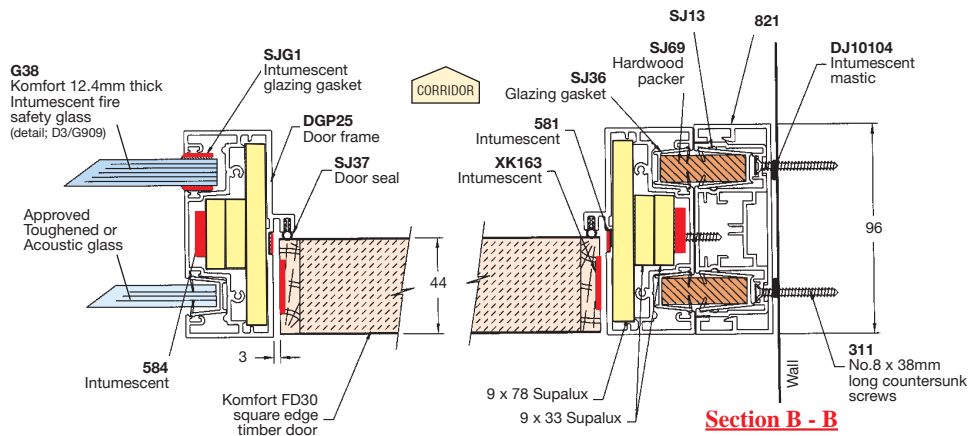
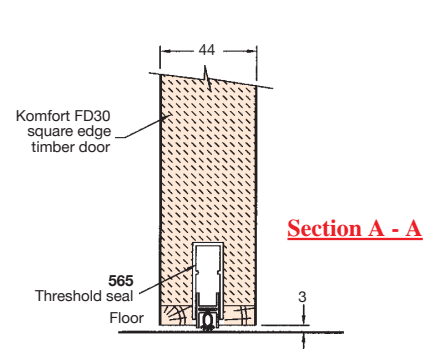
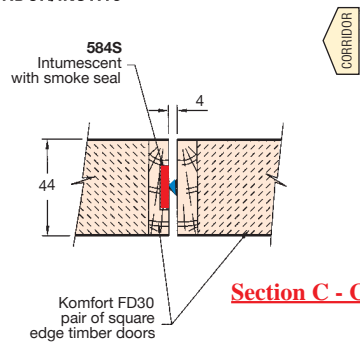
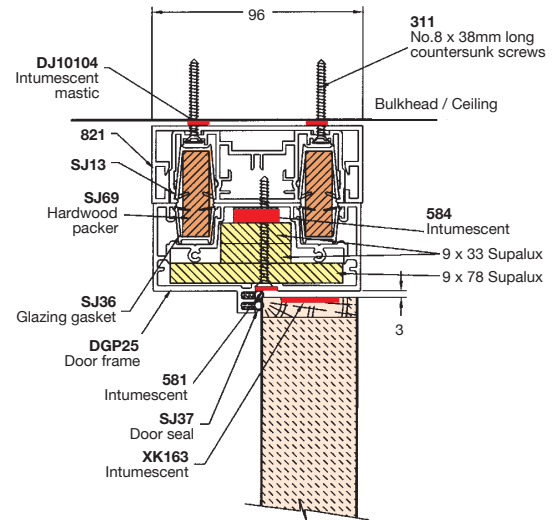
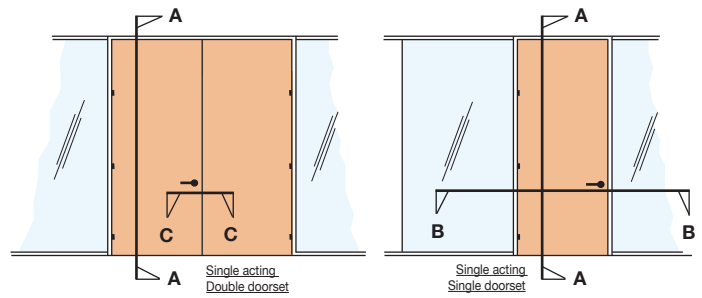
For full height doors in aluminium frame (DGP25) to wall abutment channel (DGP1) see data sheet **PO2 T.DOR/INST.13**

For glazed apertures in the door see data sheet **PO2 T.DOR/INST.8**

For ironmongery details see data sheet **PO2 T.DOR/INST.14**

For door frame (DGP25) fitting details see data sheet **PO2 T.DOR/INST.15**

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



Data Sheet No. PO2 T.DOR /INST.12 - 04/10



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**POLAR DOUBLE GLAZED PARTITIONING FITTING INSTRUCTIONS
FOR SINGLE ACTING SINGLE & DOUBLE FD30 FULL HEIGHT
TIMBER DOORSETS IN ALUMINIUM DOOR FRAME (DGP25)**

Komfort's 'Polar' double glazed system FD30 single and double full height timber doorset in a aluminium door frame (DGP25) 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 available test evidence.

30 minutes Integrity and 30 minutes insulation is achieved for single acting single and double doors when constructed using all Komfort components as shown within this data sheet.

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

Full height doors and frames are fitted with 1 1/2 pair steel hinges (582). See the Summary of Performance **PO / F9** leaf size envelope for full details of door widths and height limits.

It is important that the doorset and glazing into the door frame fitting detail for the fixings and intumescent seals remain as defined within the assessment and test reports as products can often exhibit significantly different characteristics which could alter the performance obtained therefore they must not be considered interchangeable, irrespective of whether the individual product has been tested and dimensions are maintained.

For full height doors in aluminium frame (DGP25) with glazed both sides see data sheet **PO2 T.DOR/INST.12**

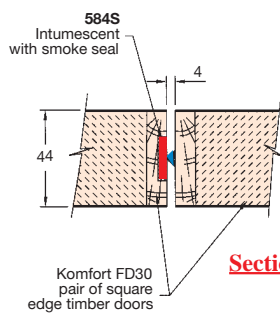
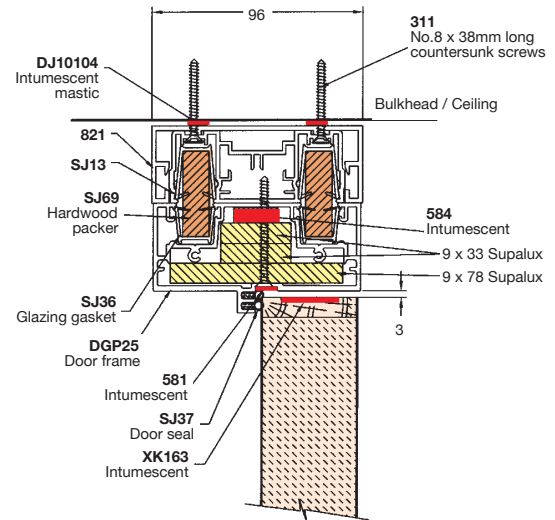
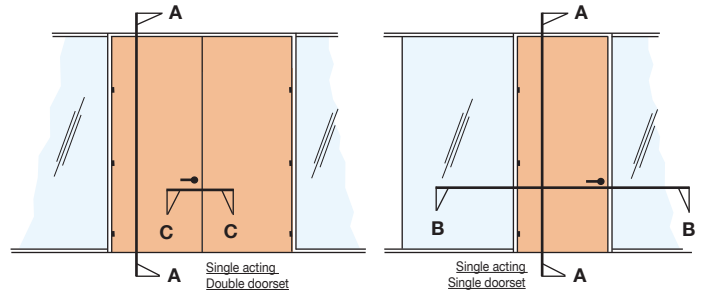
For full height doors in aluminium frame (DGP25) to wall abutment channel (821) see data sheet **PO2 T.DOR/INST.12**

For glazed apertures in the door see data sheet **PO2 T.DOR/INST.8**

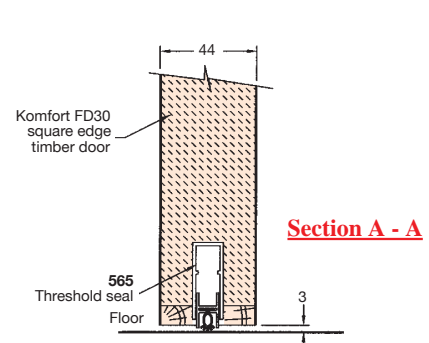
For ironmongery details see data sheet **PO2 T.DOR/INST.14**

For door frame (DGP25) fitting details see data sheet **PO2 T.DOR/INST.15**

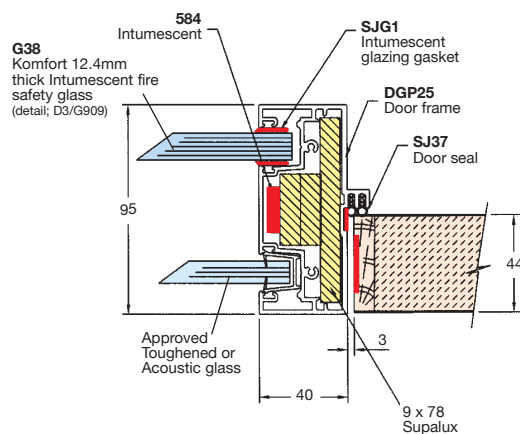
For glazed module assembly details see data sheet **PO2 GLA/INST.1**



Section C - C



Section A - A



Section B - B

Data Sheet No. PO2 T.DOR /INST.13 - 04/10



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**POLAR DOUBLE GLAZED PARTITION WITH FD30 TIMBER DOOR IN
TIMBER OR ALUMINUM FRAME APPROVED GLAZED APERTURE SIZES
& FITTING INSTRUCTIONS FOR 44mm THICK SINGLE ACTING DOORSET**

See Summary of Performance **PO / F9** and **PO / F13** for further details of the door / doorset size limitations and the position of apertures within the door leaf.

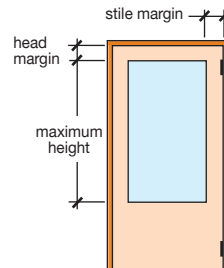
More than one aperture may be included in each leaf provided that the distance between adjacent apertures is not less than 100mm and that the total area does not exceed the maximum permitted.

The manufacture of clear toughened fire glass requires a minimum 230mm length to at least one side of the glass, therefore when both edge sizes required are less than 230mm the apertures can only be glazed using wired or intumescent interlayer glass.

Edge tapes on some fire performance glass are fitted to improve thermal conductivity or as protection and must not be removed.

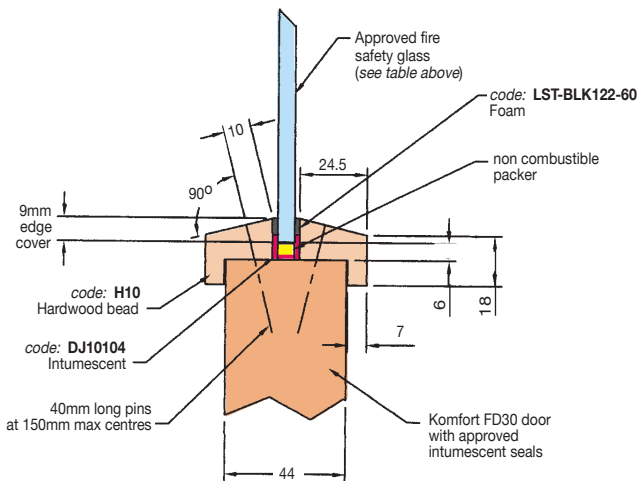
Fire resistant intumescent interlayer glasses must be silicon capped to the glazing bead to prevent the ingress of moisture / water.

Details are available on request of alternative glazing bead styles that may be used with all Komfort doorsets.



SD30 Vision Panel Approved / Tested Fire Glass		
Thick	Brand Name	Finish
6mm	Komfort	Clear
	Pyrocet	
	Pyran S	
7mm	Pyrobelite	Clear Intumescent interlayer
Alternative glass products in lieu of those stated should not be used without adequate documentary evidence.		

Vision Panel Size Limitations (mm)				
Door Action (Abbreviated)	Maximum Area m ²	Maximum Height	Head Margin (a)	Stile Margin
LSASDOP	0.80	1300	150	150
ULSASDOP				
LSADDOP	0.50	750	175	175
ULSADDOP	0.35	650		
NOTES				
(a) Minimum 300mm margin is required for door leaves over 2100mm high.				

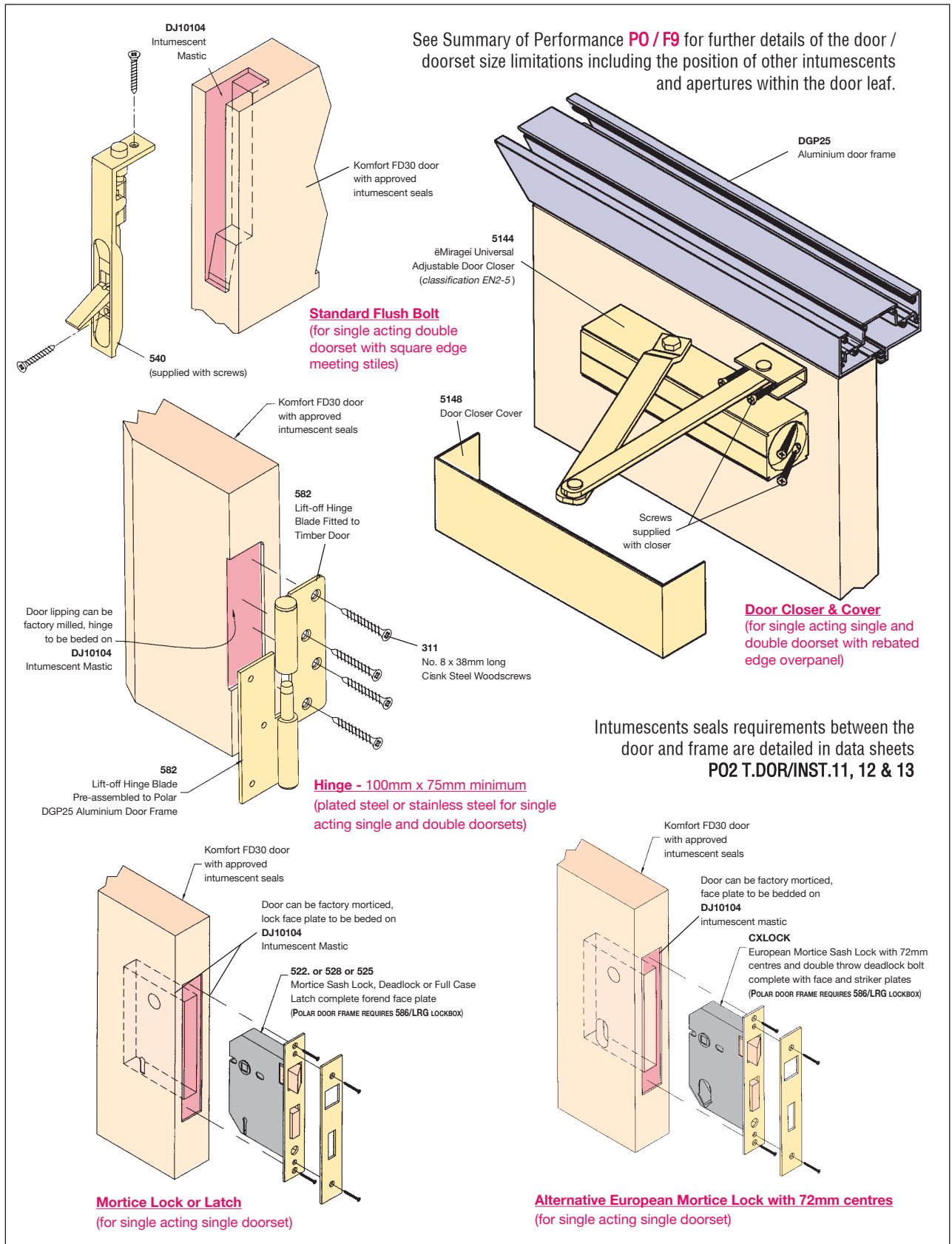


Style H10
Timber bead square, rectangle,
circular or shaped glazing detail

SD30 Approved Glazing Bead Timbers		
Timber Species	Density kg/m ³	30 minute Glazing Bead
Ash	530 - 820	see note (1)
European Beech	670 - 720	✓
American Beech	740	✓
European Cherry	630	✓
European Maple	660 - 690	✓
North American Maple	550 - 740	see note (2)
Red Oak	790	✓
European Sycamore	630	✓
West African Mahogany	530 - 800	see note (2)
White Oak	770	✓
Utile	660	✓
NOTES		
(1) The burn rate of this hardwood is different from others listed and will require an additional intumescent liner used around the glazing aperture as detailed below.		
(2) These timber species have a variable density, and they are only acceptable if the actual density used is in excess of 640 kg/m ³ . This relates to approximately 700 kg/m ³ at 10% moisture content.		



POLAR DOUBLE GLAZED PARTITION WITH FD30 44mm THICK SINGLE ACTING SINGLE & DOUBLE TIMBER DOOR IN ALUMINUM FRAME (DGP25) APPROVED IRONMONGERY FITTING INSTRUCTIONS



Data Sheet No. PO2 T.DOR/INST.14 - 04/10



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**POLAR DOUBLE GLAZED PARTITION SYSTEM
ALUMINUM DOOR FRAME (DGP25) APPROVED FITTING INSTRUCTIONS**

Komfort's 'Polar' double glazed system FD30 timber door and overpanel in an aluminum door frame *code*: DGP25 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 available test evidence.

Half hour fire rating is achieved for single acting single and double doors with rebated edge overpanels when constructed using all Komfort components.

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

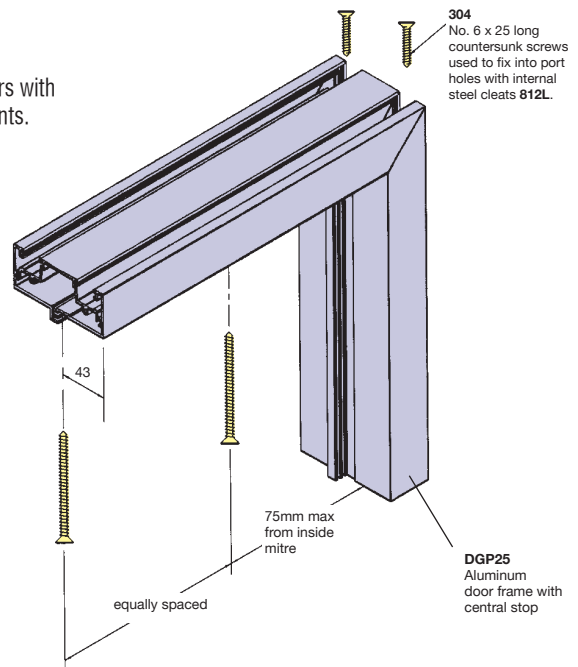
See Summary of Performance **PO / F9** for further details of the door / doorset size limitations including the position of other intumescent seals and apertures within the door leaf.

Intumescent seals requirements between the door and frame with a central door stop are detailed in data sheet **PO2 T.DOR/INST.11, 12 & 13**

Intumescent seals requirements between the door and frame with an offset door stop are detailed in data sheet **PO2 T.DOR/INST.17**

For ironmongery details see data sheet **PO2 T.DOR/INST.14**

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



INSTALLATION

After establishing the floor to underside head channel height deduct a further 1mm for the door frame base fixing bracket and cut the door frame leg to length.

Slide the base fixing bracket into the bottom of the door frame extrusion and tape in place (*if required*).

Once the frame is in position required and is vertically plumb in both planes secure the bottom of the door frame using *code*: **311** - No.8 x 38 long countersunk screws and rawplugs (*if required*).

Check that the door frame is still plumb before securing the head using No.8 x 50 long countersunk screws to the head channel.

Note:

The door frame base fixing bracket is designed to be hidden by the carpet.

