

#### **Strebord Panelled Doors:**

Strebord cores can be used for the manufacture of panelled appearance doors in a wide range of designs and configurations and providing for fire resistant performances up to FD60 (*BS476 Pt.22*) subject to the following limitations:

The basic core construction is routered to a depth of 10mm on each face with decorative panels (*min. 3mm thickness MDF*) secured with adhesives into the recess. Panels may be further secured using a simple hardwood beading system.

Some panelled elements of the door leaves may be replaced with glazing within the limits described by reference to *Pages 13.6 (Glass & Glazing)* of this manual.

For performances up to FD30 (BS476 Pt.22) doorsets can be manufactured to suit the dimensional applications and configurations described by reference to Pages  $13.9 \sim 13.13$  (Fire door Applications) and Pages  $13.14 \sim 13.21$  (Intumescent sealing).

NOTE: Dimensions and configurations are more limited for FD60 applications as defined in this section See Pages 13.13 & 13.22.

Hardware can generally be selected and used as described by reference to *Section 9* -*Hardware* but with further restrictions as described by reference to *Page 13.8*. When routering door faces for fire rated doorsets to produce the panelled appearance the following minimum dimensions apply:

#### Non Fire Rated & FD30:

a/ Stiles: Min. width = 100mm.
b/ Mullions: Min. width = 80mm.
c/ Top rail: Min. depth = 100mm.
d/ Bottom rail: Min. depth = 170mm
e/ Single mid rail: Min. depth = 160mm.
f/ Intermediate rails: Min. depth = 80mm.

NOTE: Where more than one horizontal rail is formed between the top and bottom rail the depth dimension for each rail can be reduced from Min. 160mm to Min. 80mm

FD60:

a/ Stiles: Min. width = 100mm.
b/ Mullions: Min. width = 80mm.
c/ Top rail: Min. depth = 100mm.
d/ Bottom rail: Min. depth = 200mm
e/ Single mid rail: Min. depth = 170mm.
f/ Intermediate rails: Min. depth = 80mm.

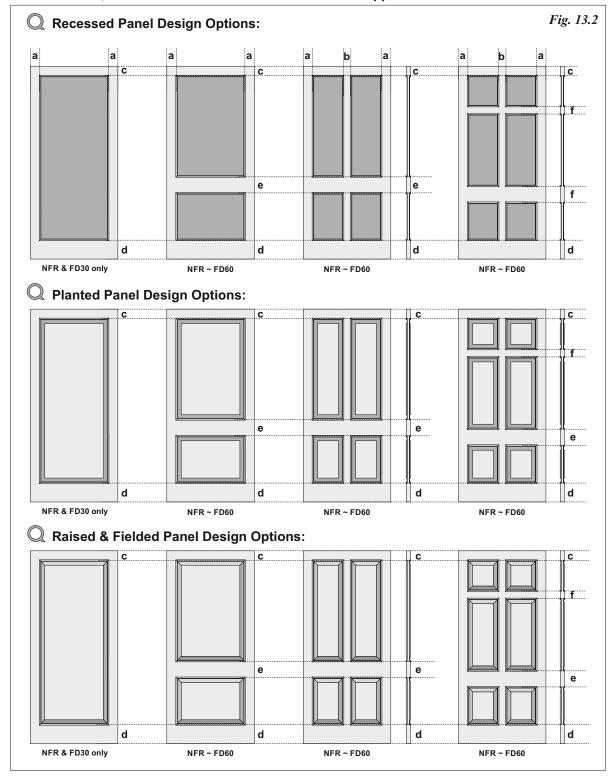
NOTE: Where more than one horizontal rail is formed between the top and bottom rail the depth dimension for each rail can be reduced from Min. 170mm to Min. 80mm v9.1

Strebord

Panelled Doors

Door Core

Strebord<sup>©</sup> Panelled Doors



Minimum Stile, Rail & Mullion Dimensions for Fire Door Applications:

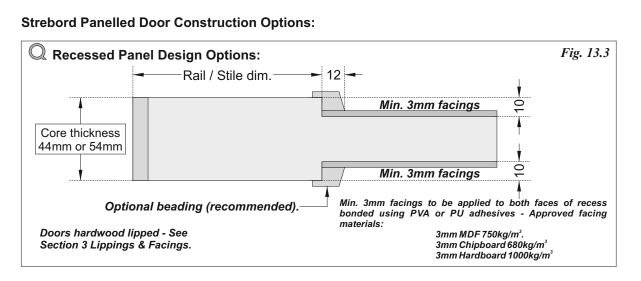
#### NOTES:

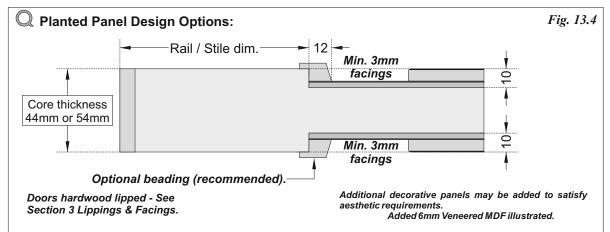
1/See page 13.1 for approved minimum dimensions a, b, c, d, e & f.

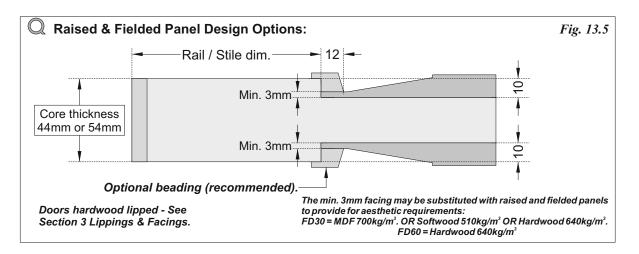
2/Where a single horizontal mid rail is used: Minimum mid rail height: FD30 = 160mm. FD60 = 170mm.
3/Where intermediate rails are used (more than one horizontal rail) the minium intermediate rail height = 80mm.
4/All mullion widths = Min. 80mm

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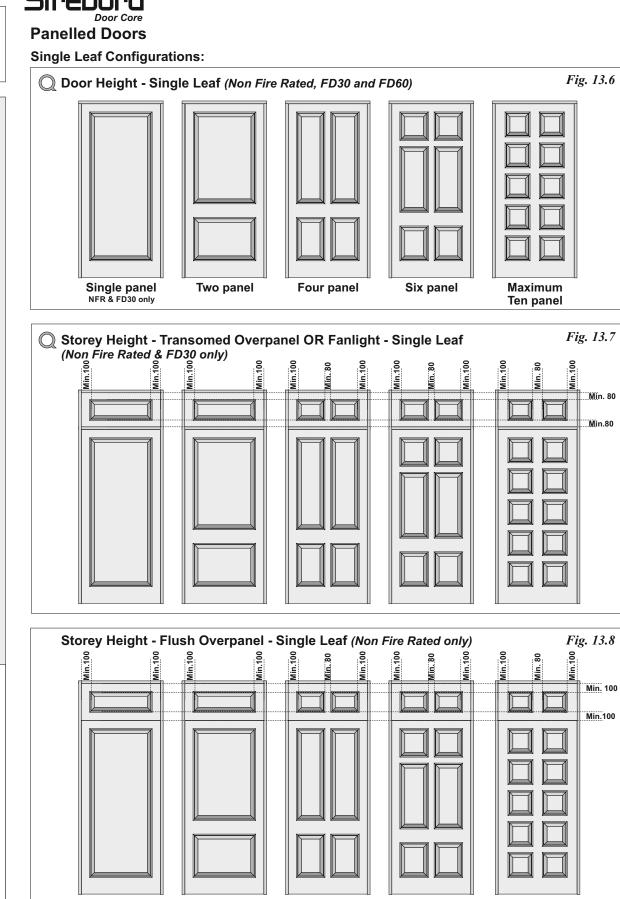






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Door Core



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**Panelled Doors** 

NOTE: Detail applies to all panel designs - Raised and Fielded panel design illustrated.

#### Strehorr Door Core

#### Panelled Doors

Fig. 13.9

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#### **Double Leaf (Pairs) Configurations:**

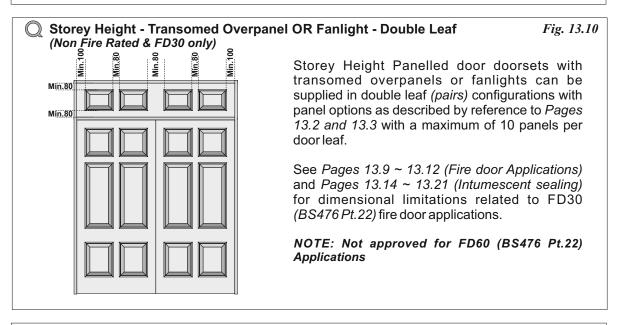
### **Over Height - Double Leaf** (Non Fire Rated & FD30 only)

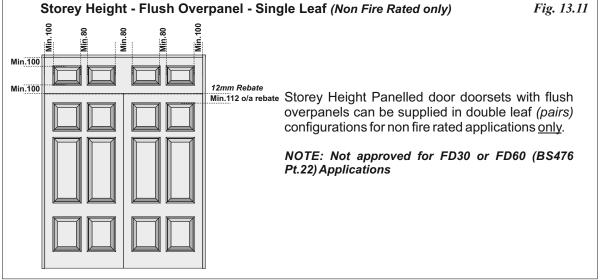
Panelled door doorsets can be supplied in double leaf configurations with panel options as described by reference to Pages 13.2 and 13.3 with a maximum of 10 panels per door leaf. See Pages 13.9 ~ 13.12 (Fire door Applications) and Pages 13.14 ~ 13.21 (Intumescent sealing)

> NOTE: Not approved for FD60 (BS476 Pt.22) Applications

> for dimensional limitations related to FD30

(BS476 Pt.22) fire door applications.





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Panelled Doors

#### Strebord Door Core

#### Panelled Doors

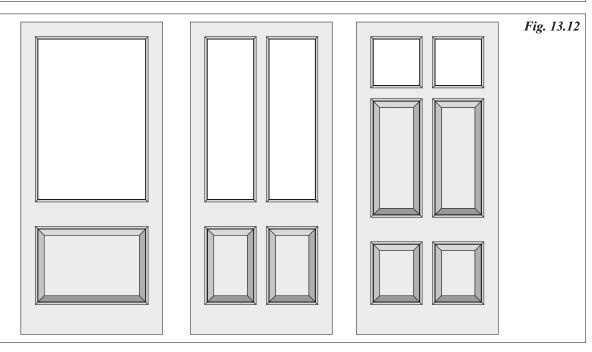
#### Glazing Panelled Doors FD30:

#### Q Glazing Panelled Doors:

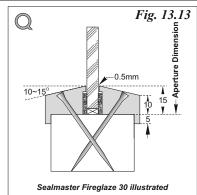
Panelled areas may be replaced with glazing where required. (NOTE: Max. 0.7m<sup>2</sup> glazed area See below)

For fire rated doorsets up to FD30 (BS476 Pt.22) glass types and glazing systems must comply with the details described by reference to Section 6 - Glass and Glazing.

Profiled beading to create 'period' appearances may be used in conjunction with insulating glass types only.



#### NOTE: Glazing is not approved for FD60 applications.

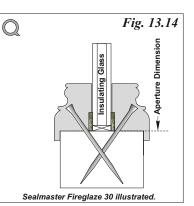


The glazing of panelled door for fire door applications up to FD30 is approved where the clear glass area does not exceed 0.7m<sup>2</sup>. (except where otherwise restricted by reference to glass types and beading systems detailed in Section 6 - Glass & Glazing).

Approved glass types and glazing systems, including bead profiles must comply with *Section 6 - Glass & Glazing* details when used with non insulating glass types.

When used with insulating glass types beading can be profiled to provide for a 'period' appearance to match panel bead.

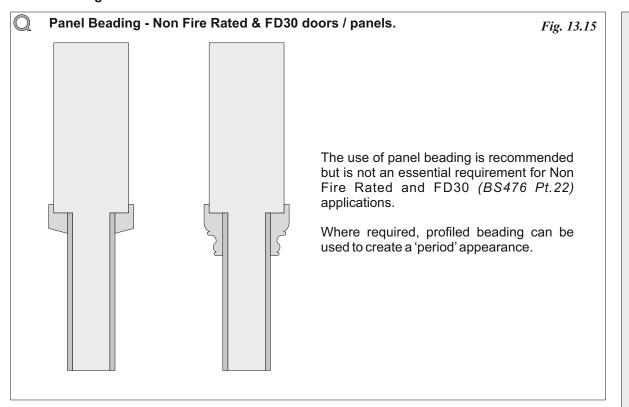
Approved glass types for fire door applications together with approved intumescent glazing systems are detailed in Section 6 - Glass & Glazing.

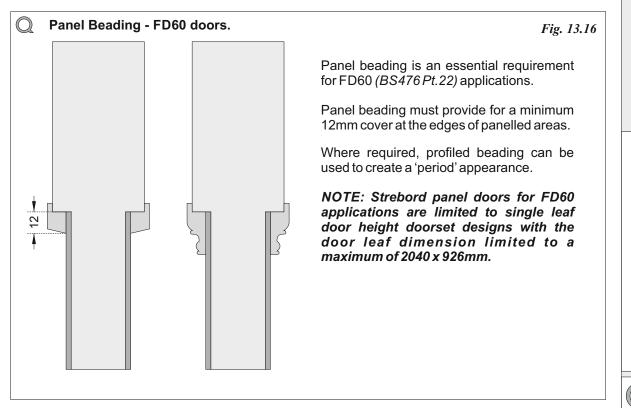


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#### Panel Beading:





Strebo Door Core Panelled Doors

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#### **Recessed and Planted Panel Design Options:**

Fig. 13.17

Strebord panel door designs are not limited to the use of rectilinear panels.

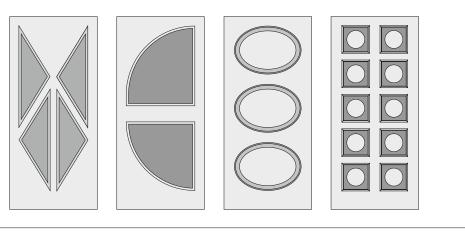
20mm margin Door viewer

20mm margin morticed

lock / latch

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Recessed and Planted panel design options in particular provide Designers with wide scope for the expression of aesthetic requirements subject to the maintenance of the stile, rail and mullion dimensions described by reference to *page 13.1*.



**Q** Panelled Doors - Hardware:

Fig. 13.18

Hardware must be selected and fitted in accordance with the recommendations to be found by reference to Section 9 - Hardware.

In addition to *Section 9* guidance, the following additional consideration apply to Strebord Panel door designs:

1/All items of hardware that pass through the door thickness or which are morticed into the door should be located in the maximum thickness section of the door constructions *(i.e. the 44mm* or 54mm thickness).

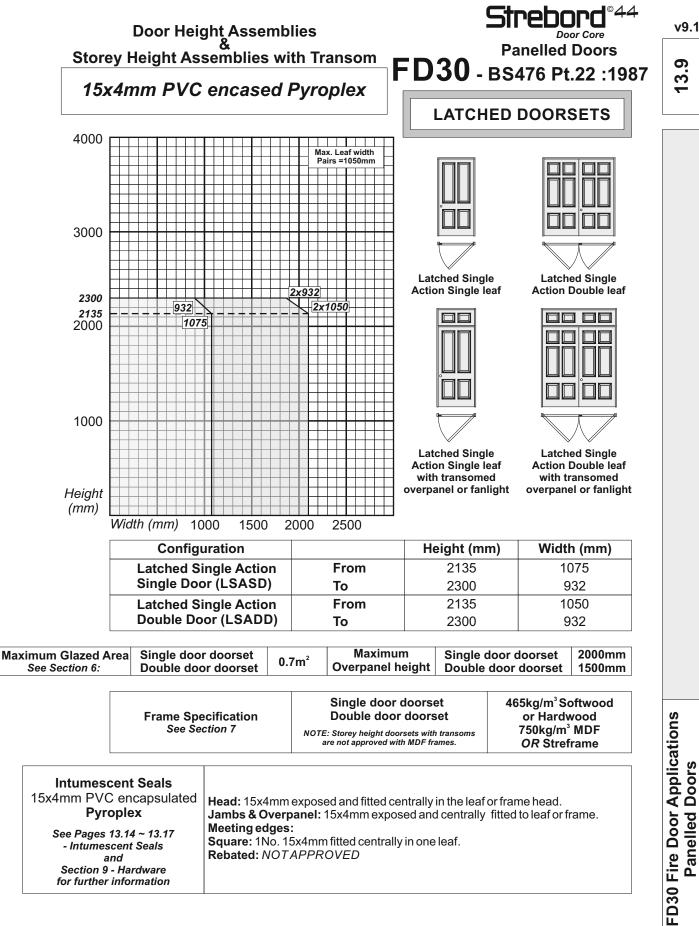
2/ A margin within the maximum door leaf thickness should be allowed to provide for a minimum 20mm around hardware items that are morticed into the door edges or which pass through the door thickness.

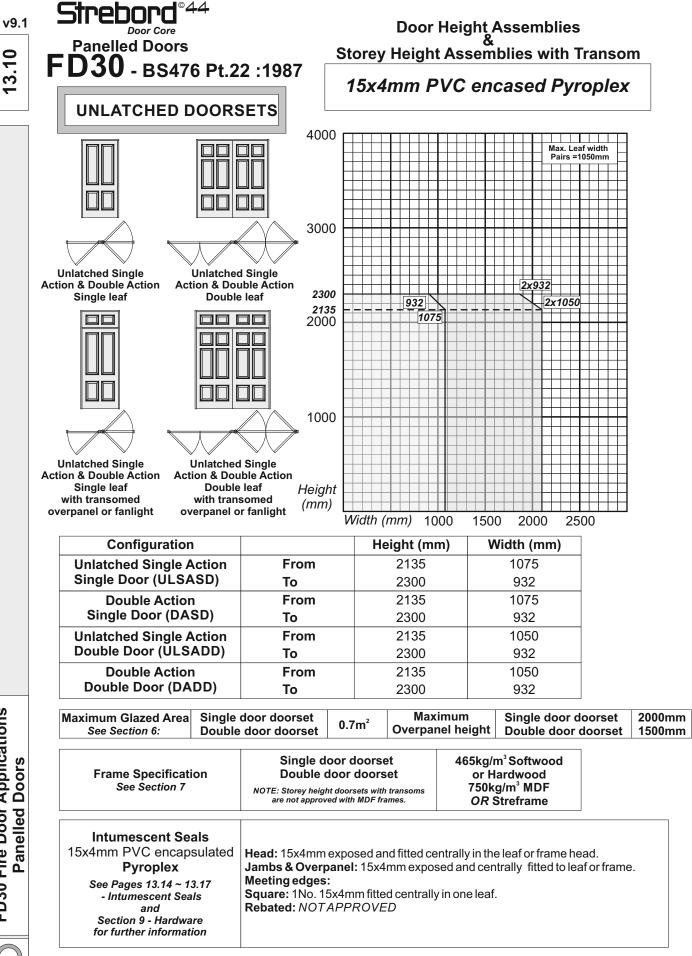
3/ Cableways for electric lock / strikes are not approved for use with  ${\rm Strebord}^{\circ}$  panelled doors.

Intumescent provisions described by reference to Section 9 - Hardware apply equally to panel door designs.

**Panelled Doors** 

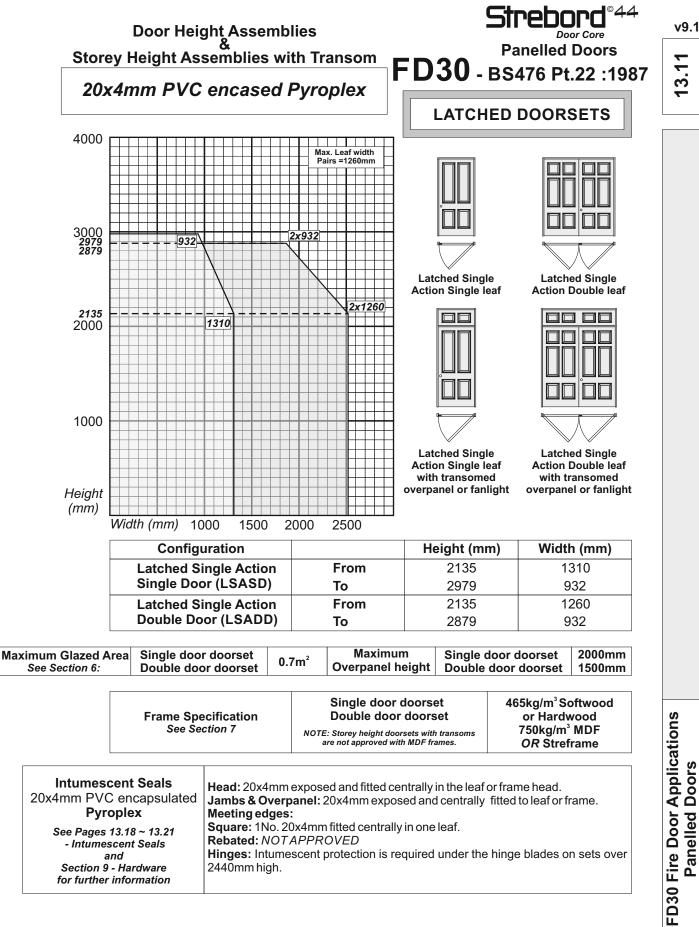
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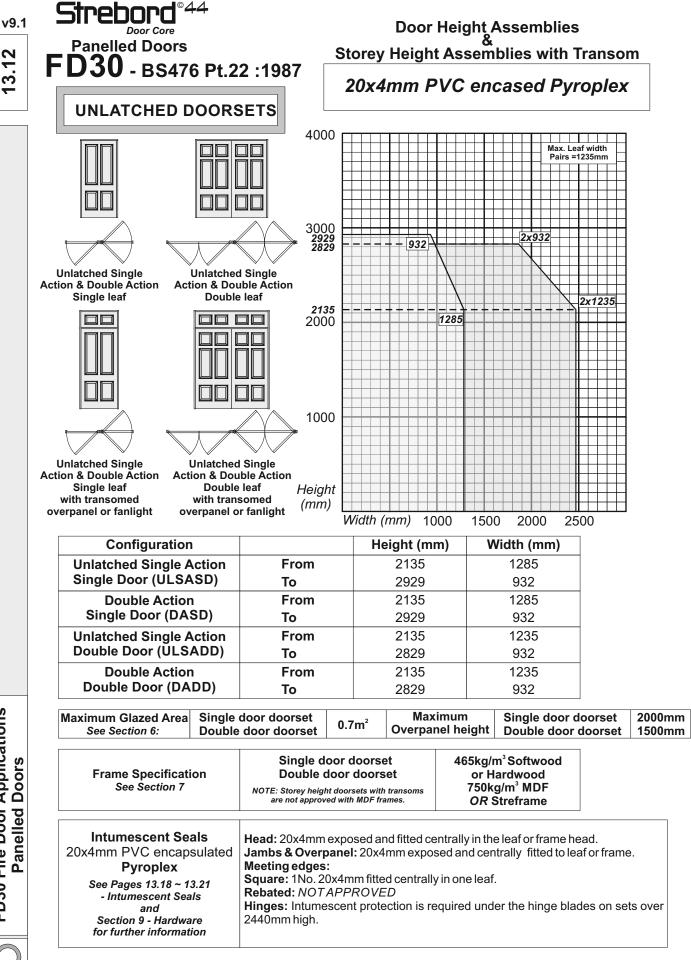


Exova (UK) Ltd trading as Exova BM TRADA Ref: Chilt/A09104 Rev. B Valid until 17th. October 2017

FD30 Fire Door Applications **Panelled Doors** 



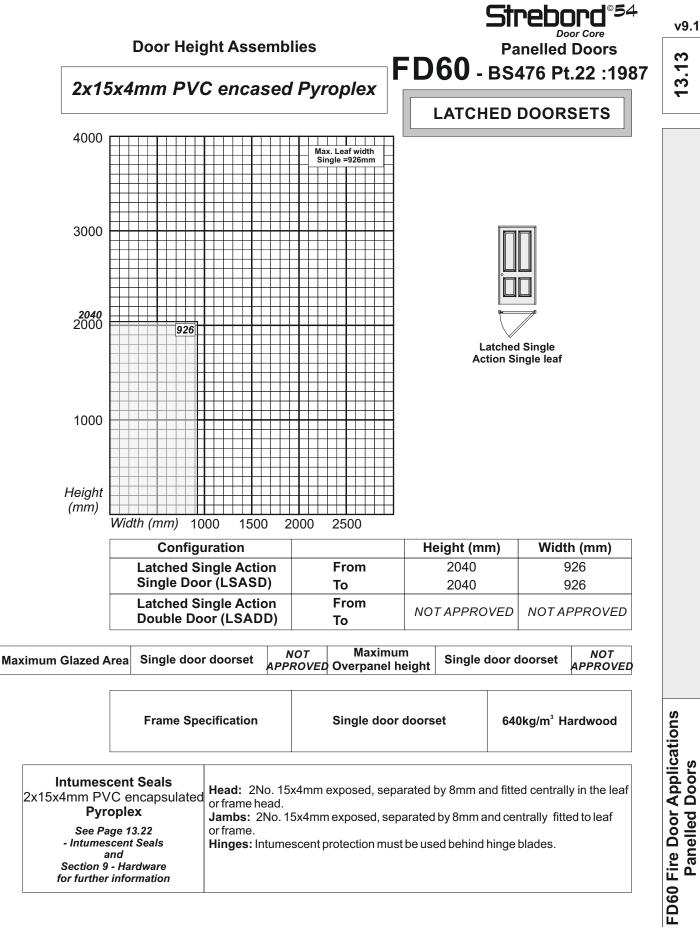
Exova (UK) Ltd trading as Exova BM TRADA Ref: Chilt/A09104 Rev. B Valid until 17th. October 2017

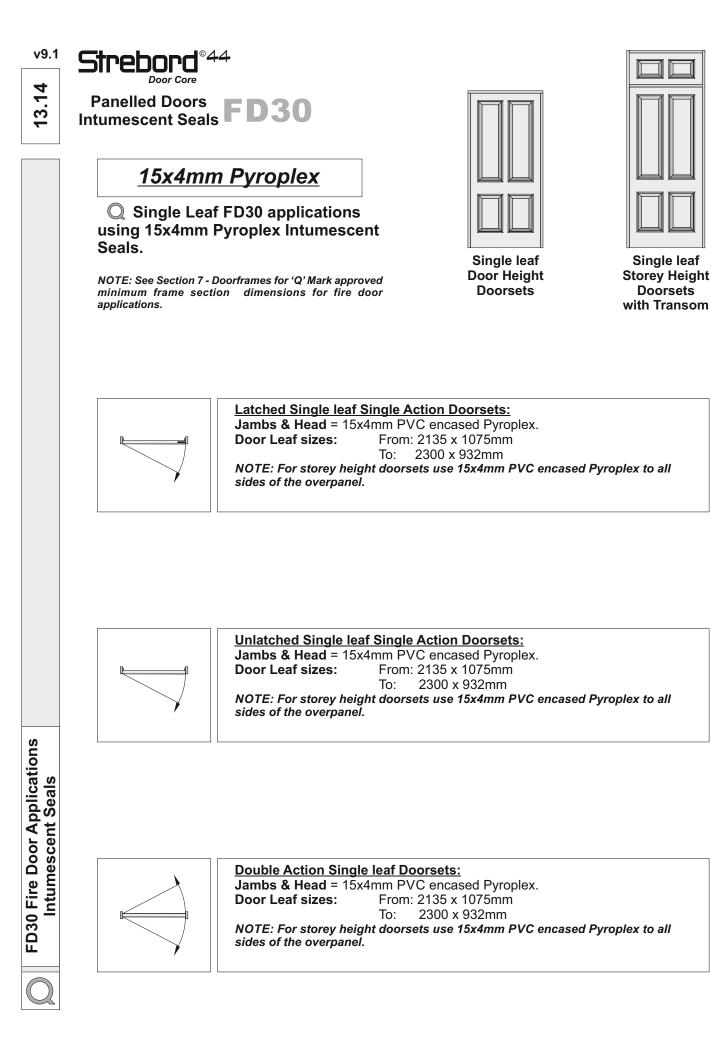


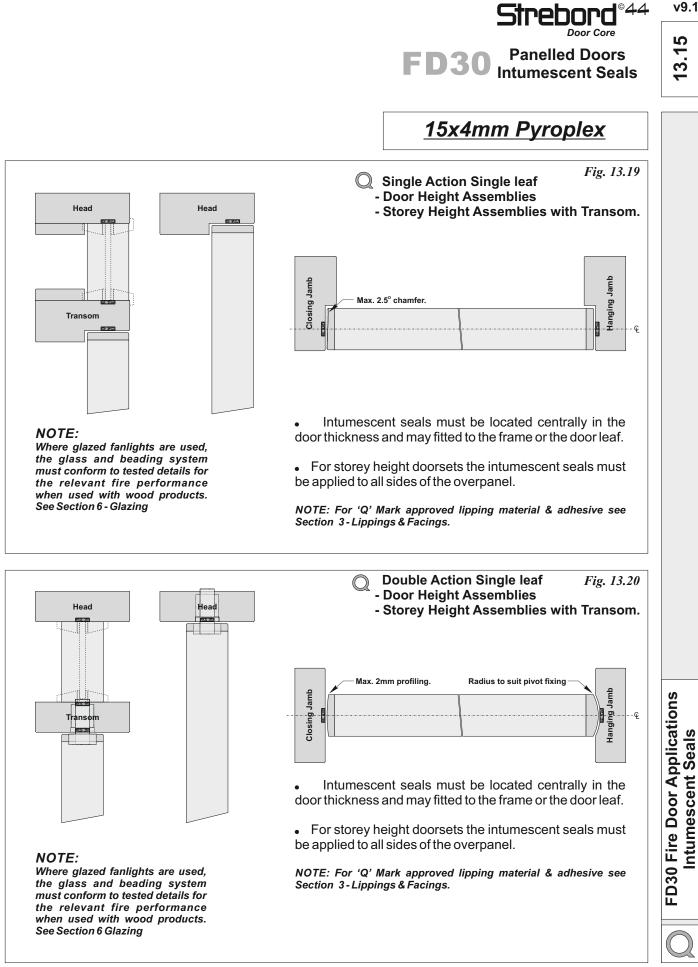
Exova (UK) Ltd trading as Exova BM TRADA Ref: Chilt/A09104 Rev. B Valid until 17th. October 2017

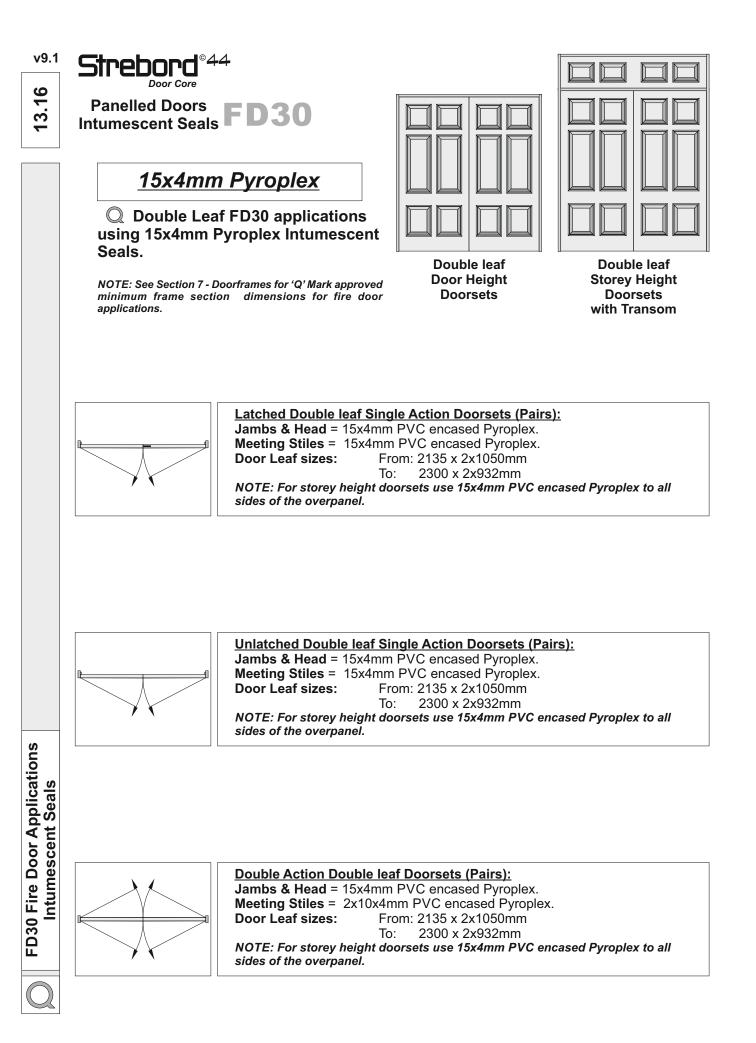
FD30 Fire Door Applications **Panelled Doors** 

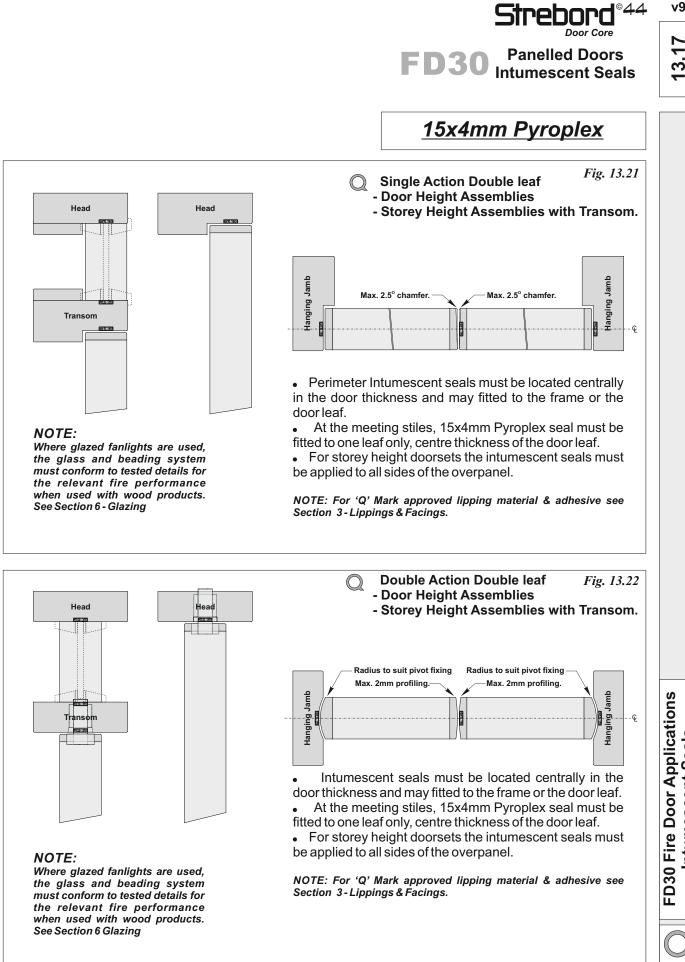
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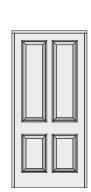
ntumescent Seals



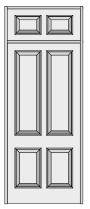
## 20x4mm Pyroplex

**Q** Single Leaf FD30 applications using 20x4mm Pyroplex Intumescent Seals.

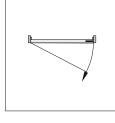
NOTE: See Section 7 - Doorframes for 'Q' Mark approved minimum frame section dimensions for fire door applications.



Single leaf Door Height Doorsets



Single leaf Storey Height Doorsets with Transom



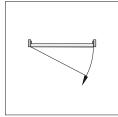
 Latched Single leaf Single Action Doorsets:

 Jambs & Head = 20x4mm PVC encased Pyroplex.

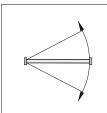
 Door Leaf sizes:
 From: 2135 x 1310mm

 To:
 2979 x 932mm

 NOTE: For storey height doorsets use 20x4mm PVC encased Pyroplex to all sides of the overpanel. Intumescent hinge protection behind blades for doors over 2440mm high.



Unlatched Single leaf Single Action Doorsets:Jambs & Head = 20x4mm PVC encased Pyroplex.Door Leaf sizes:From: 2135 x 1285mmTo:2929 x 932mmNOTE: For storey height doorsets use 20x4mm PVC encased Pyroplex to allsides of the overpanel. Intumescent hinge protection behind blades for doorsover 2440mm high.



 Double Action Single leaf Doorsets:

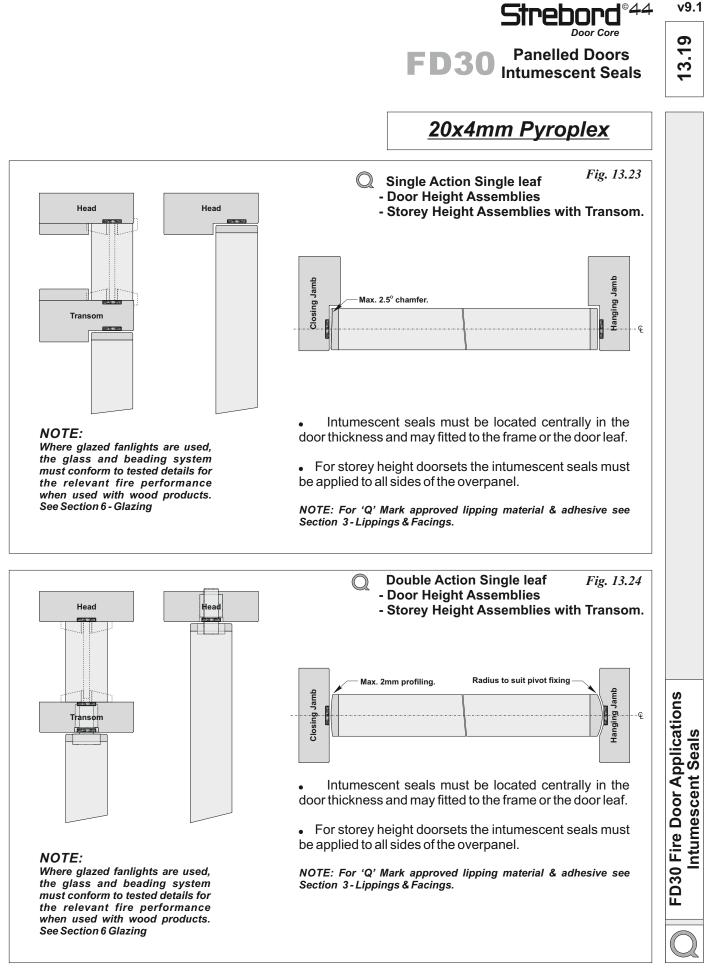
 Jambs & Head = 20x4mm PVC encased Pyroplex.

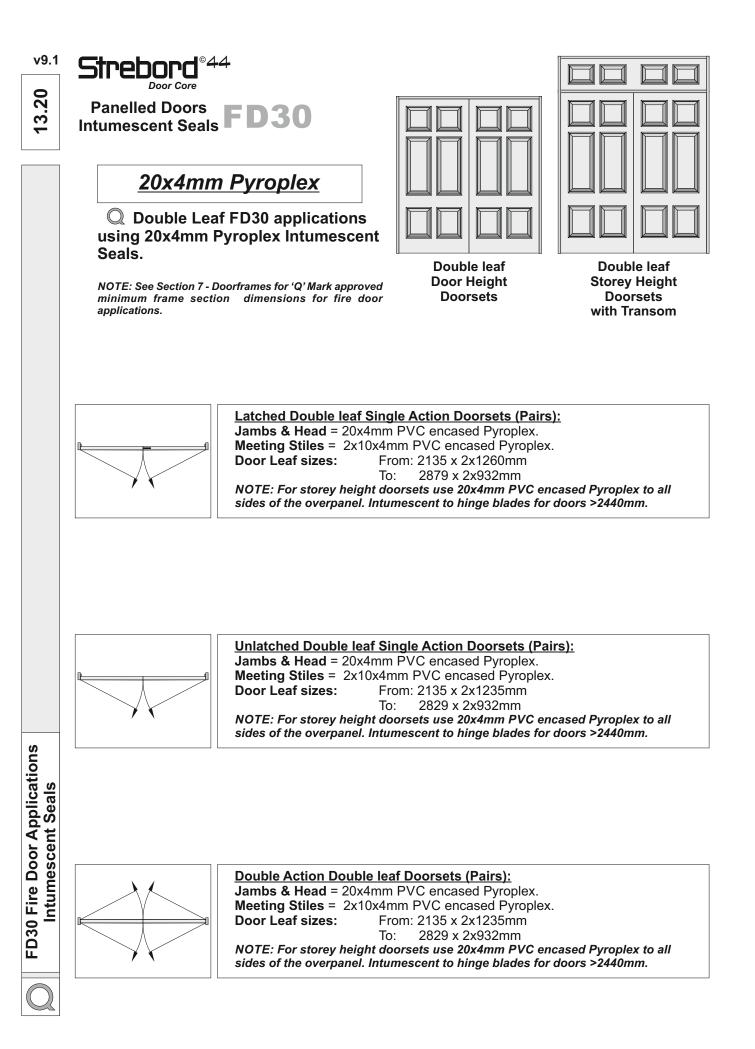
 Door Leaf sizes:
 From: 2135 x 1285mm

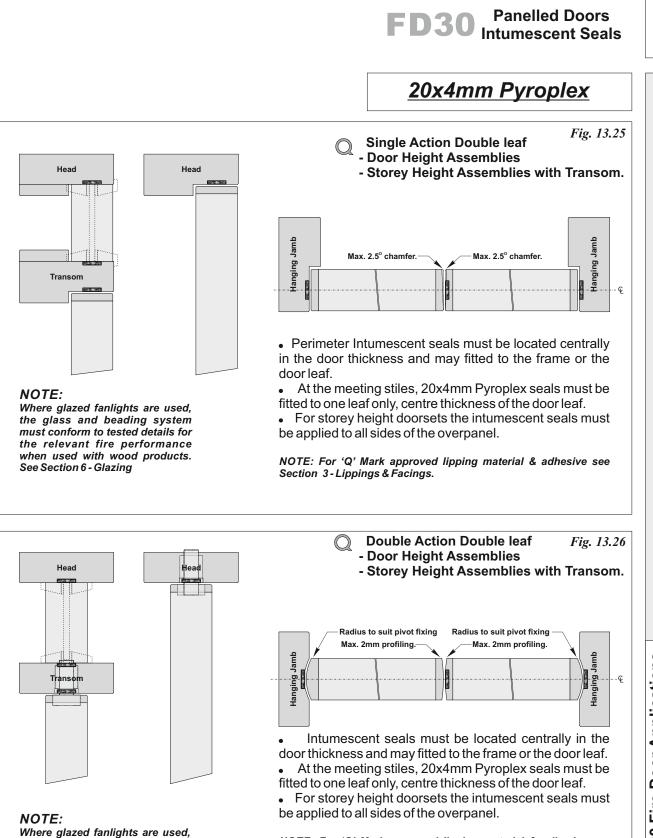
 To:
 2929 x 932mm

 NOTE: For storey height doorsets use 20x4mm PVC encased Pyroplex to all sides of the overpanel. Intumescent hinge protection behind blades for doors over 2440mm high.

FD30 Fire Door Applications Intumescent Seals







NOTE: For 'Q' Mark approved lipping material & adhesive see Section 3-Lippings & Facings.

the glass and beading system

must conform to tested details for the relevant fire performance when used with wood products.

See Section 6 Glazing

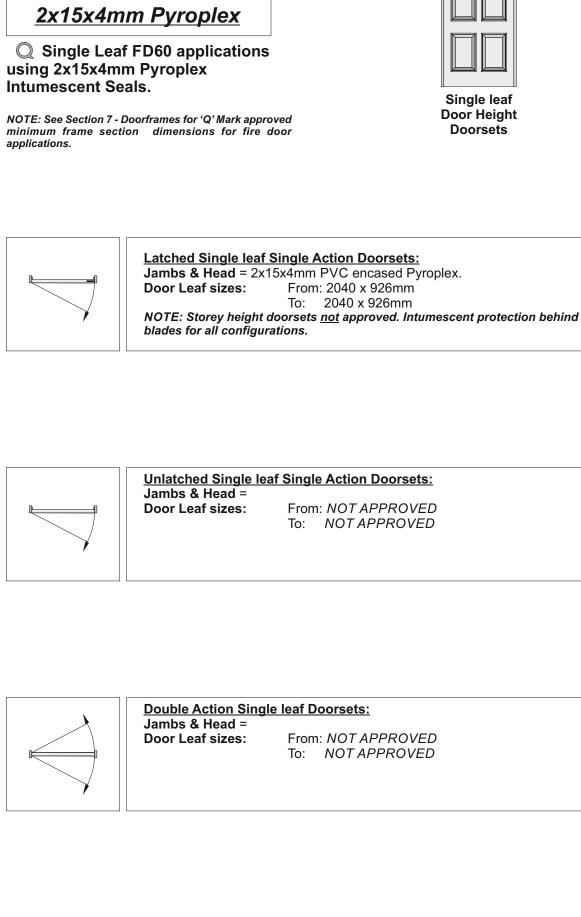
FD30 Fire Door Applications Intumescent Seals

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**FD60** 

Single leaf

**Door Height** Doorsets



Strebord<sup>°54</sup> Door Core

**Panelled Doors** 

**Intumescent Seals** 

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**FD60 Fire Door Applications** Intumescent Seals

