

- Pacific Rim Wood Ltd. provides for a worldwide sales and distribution service for wood products manufactured by P.T. Kutai Timber Indonesia including a range of FLAMEBREAK™ door core products.
- The basic core construction consists of three layers of cross banded lamels contributing to exceptional dimensional stability.
- The core construction includes a concealed perimeter framing to all four edges with framing elements tongue and groove jointed to the core structure.
- The core material consists of a light weight fast growing tropical hardwood of approx. 300Kgs/m³ density. The timber for the core is harvested from forests that are managed to provide for reforestation under the control of an ISO14001 Environmental Management System supported by chain of custody certification.
- The core framing material is made up of mixed tropical hardwoods of approx. 480Kgs/m³ density. The framing is finger jointed to make economical use of timber from other processes that would otherwise be wasted.
- FLAMEBREAK 30™ Door Blanks are provided with optional facings as follows:
 - 4mm Plywood.
 - 6mm Plywood.
 - 6mm Medium Density Fibreboard.
- FLAMEBREAK 60™ Door Blanks are provided with optional facings as follows:
 - 6mm Plywood.
 - 6mm Medium Density Fibreboard.
- Individual core blocks are assembled with a PVA adhesive and the three layer core lamels are bonded using a Melamine Urea adhesive system. Facings are applied to the core assembly with a melamine adhesive. Blank assemblies have been subjected to Soak Delaminating Tests and are suitable for external use, subject to the application of suitable finishing systems.
- FLAMEBREAK™ Door blanks have been subjected to a number of BS476 Pt.22 fire resistant tests with and without additional lippings and have a proven performance for a wide range of FD30 (*half hour fire resistance*) and FD60 (*one hour fire resistance*) applications. More recently, door assemblies based upon the use of FLAMEBREAK™ cores have been successfully tested to the requirements of BS EN 1634-1 providing for confidence that 44mm FLAMEBREAK™ cores have the potential to provide for a stable door core product for the development of CE marked doorset designs for half hour fire door applications.
- FLAMEBREAK™ Door blanks can be faced with a wide range of decorative facing materials, e.g. decorative veneers, laminates PVC etc.
- Doors manufactured using FLAMEBREAK™ Door Blanks can be glazed using an extensive range of glass and beading systems.
- The solid wooden core construction of FLAMEBREAK™ Door Blanks provides for fixing of a wide range of ironmongery items. For fire rated door assemblies, reference should be made to BS8214 and the related ABHM & Guild of Architectural Ironmongers Code of Practice. 'Hardware for Timber Fire and Escape Doors'.

Handling & Storage:

- When handling FLAMEBREAK™ Door Blanks with forklift trucks or other mechanised handling equipment, care should be taken to observe the safety advice and weight restrictions related to the equipment.
- When manually handling, operatives should wear suitable industrial quality gloves to avoid injury.
- FLAMEBREAK™ Door Blanks should be stored under clean dry conditions similar in ambient condition to that intended for further production.
- Areas for storing FLAMEBREAK™ Door Blanks should be dry and adequately ventilated such that the Blanks are not subjected to excessive humidity and temperature.
- FLAMEBREAK™ Door Blanks should be stored flat in packaging as delivered. The lower bundle should be stored on a flat and level base supported by a minimum of 4No. equi-spaced timber bearers. Additional bundles may be stacked on top of a base bundle with each bundle separated by equi-spaced bearers to a maximum recommended height of 5 bundles per stack. Where varying size blanks are stored, the larger size blanks should be positioned at the bottom of the stack reducing to the smaller size blanks at the top of a stack.

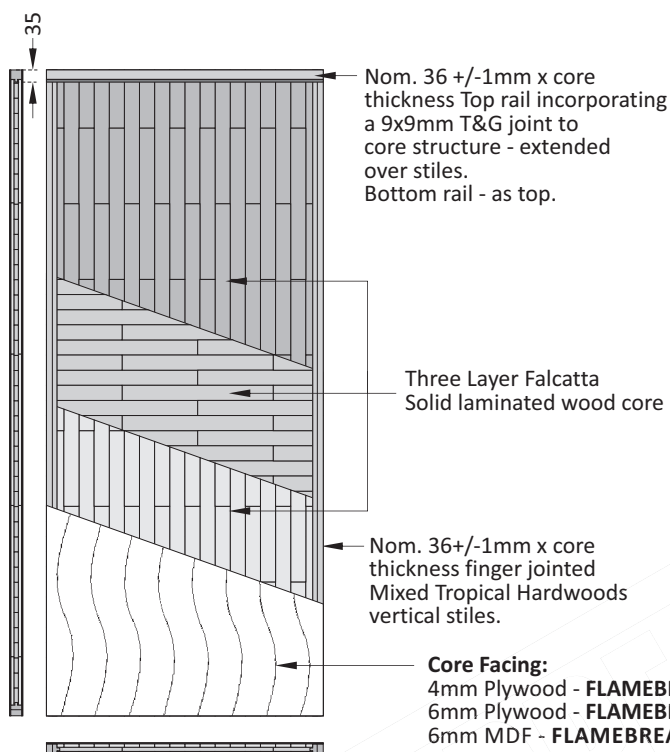
Health & Safety:

- When worked, it is likely that the Door Blanks will produce wood dust that can act as a skin or respiratory irritant. Adequate ventilation and dust waste extraction should be provided for in the workplace.
NOTE: Refer to COSHH Regulations and Guidance Note EH40.
- Ori-nasal masks to BS EN 149 and eye shields to BS EN 166 ~ 168 are recommended for use by operatives involved in the handling and working of FLAMEBREAK™.
- **In the event of exposure resulting in injury to persons the following first aid recommendations are suggested:**
 - **Inhalation of Wood Dust:** Remove person to fresh air. Clean nasal passages.
 - **Wood Dust in Eyes:** Flush eyes with tepid clean water for 15mins.
 - **If no recovery is made:** Seek immediate medical advice.

Fire & Explosion:

- FLAMEBREAK™ Door Blanks will not explode but airborne dust particles released when working the blanks could present a fire hazard. Smoking and the use of naked flames should not be permitted in work areas.
- The work area should be provided with an efficient and continuous dust extraction system.
- FLAMEBREAK™ Door Blanks are solid wood products. Normal wood fire fighting procedures should be adopted in the event of fire.

Fig. 1.1



FLAMEBREAK™ Door Blanks

Manufacturing tolerances:

Thickness	= + or - 0.5mm
Height & Width	= + or - 2mm
Squareness	= + or - 0.3mm

Component	Species / Type		Configuration	Min. density (kg/m ³)
Core	Parasoriantes falacateria or Albisia falcatta or Orchroma pyramidale		3 layers of lamels laid in alternate directions - grooved to accept the stiles and rails	140 ~ 360 (average 210)
Stiles	Mixed tropical hardwood	Leaf size ≤ 2440(h) x 1220 (w)	1 No. 32 ~ 36 thick (depending on facing thickness) x Nom. 36 deep, incorporating a 9x9 tongue to locate into the core material.	480
		Leaf size ≤ 2135(h) x 915 (w)	1 No. 32 ~ 36 thick (depending on facing thickness) x Nom. 36 deep.	480
Top & Bottom Rails	Mixed tropical hardwood		1 No. 32 ~ 36 thick (depending on facing thickness) x Nom. 36 deep, incorporating a 9x9 tongue to locate into the core material.	480
Core Facings	FLAMEBREAK 430 FLAMEBREAK 630 FLAMEBREAK FF630		Nom. 4mm Plywood. Nom. 6mm Plywood. Nom. 6mm MDF.	Various

WARNING:

For fire door applications, the top perimeter rail that forms part of the core structure, must generally be retained with a maximum trimming allowance of 3mm. (See page 1.8 for approved height adjustments for fire rated doors up to FD30).

The bottom rail may be removed completely, without the necessity for replacement by lipping. However, the use of hardwood lippings is strongly recommended where doors are to be used in external locations or for internal locations likely to be subjected to wet conditions.

For non fire rated applications, the core perimeter framing may be reduced in width - or removed - from either or both vertical edges. (See page 1.7 for approved width adjustments for fire rated doors up to FD30).

NOTE: Flamebreak cores in excess of 2745mm high are supplied without top and bottom rails.

Flamebreak 430 cores that are supplied without the top rail and that are used for fire door applications, must be hardwood lipped with the application limited to latched, single leaf, single swing configurations with 25x4mm Lorient 617 being the only approved intumescent material for this application.

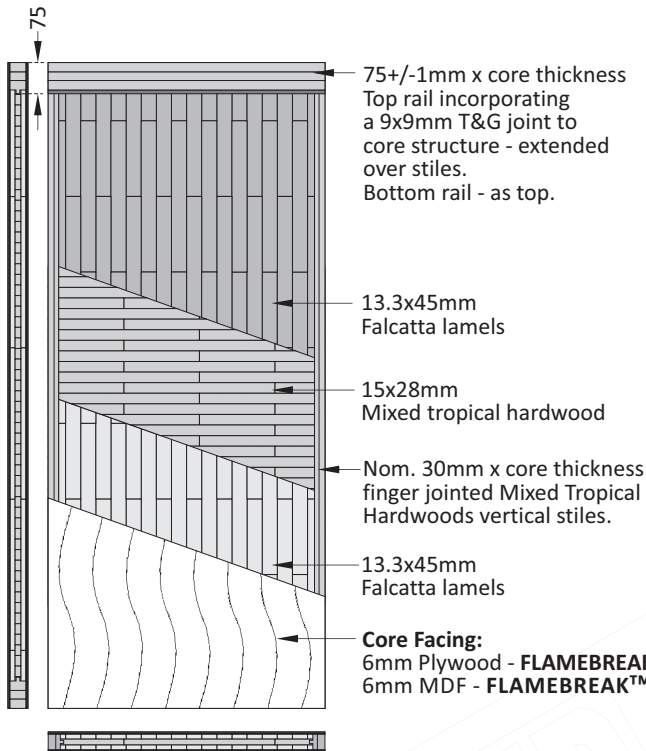


1.4

General Construction 54mm FLAMEBREAK™

FLAMEBREAK

Fig. 1.2



FLAMEBREAK 660™

Manufacturing tolerances:

Thickness	= + or - 0.5mm
Height & Width	= + or - 2mm
Squareness	= + or - 0.3mm

Component	Species / Type	Configuration	Min. density (kg/m ³)
Core Outer layers	Parasoriantes falacateria or Albisia falcatta	Vertically oriented 13.5 thick x 45 wide lamels.	180 ~ 360
Core Inner layer	Mixed tropical hardwood	Horizontally oriented 15 thick x 28 wide lamels.	480
Stiles	Agathis or mixed tropical hardwood - in 2 lamels	35 wide (total) x Nom. 41+/-1 thick incorporating a 9 wide x 9 deep tongue into the core.	Agathis - 480 or mixed tropical hardwood - 610
Top Rail	Agathis or mixed tropical hardwood - in 2 lamels	75 wide (total) x Nom. 41+/-1 thick incorporating a 9 wide x 9 deep tongue into the core.	Agathis - 480 or mixed tropical hardwood - 610
Bottom Rail	Agathis or mixed tropical hardwood - in 2 lamels	35 wide (total) x Nom. 41+/-1 thick incorporating a 9 wide x 9 deep tongue into the core.	Agathis - 480 or mixed tropical hardwood - 610
Core Facings	FLAMEBREAK 660 FLAMEBREAK FF660	Nom. 6mm Plywood. Nom. 6mm MDF.	Various

WARNING:

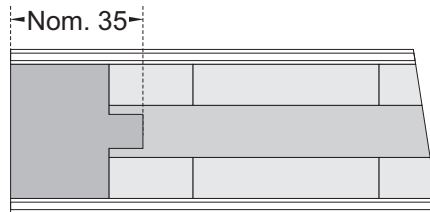
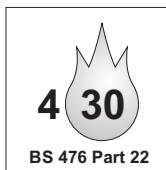
For fire door applications, the 75 mm top rail that forms part of the core structure must be retained with a maximum trimming allowance of 3mm. (See page 1.9 for approved height adjustments for FD60 fire rated doors).

For non fire rated applications, the bottom rail may be removed completely, without the necessity for replacement by lipping. However, the use of hardwood lippings is strongly recommended where doors are to be used in external locations or for internal locations likely to be subjected to wet conditions. (See page 1.9 for approved height adjustments for FD60 fire rated doors).

For non fire rated applications, the core perimeter framing may be reduced in width - or removed - from either or both vertical edges. (See page 1.7 for approved width adjustments for FD60 fire rated doors).

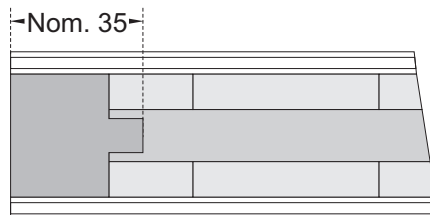
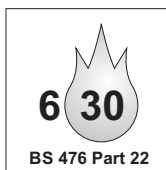


Fig. 1.3



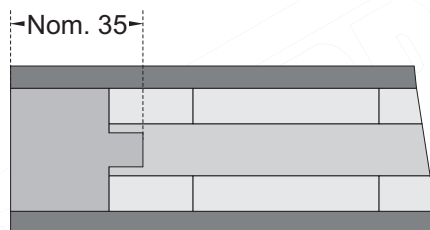
FLAMEBREAK Type 430

Nom. 44mm fin. thickness. Faced with 4mm long grain plywood.
 Suitable for external use.
 Suitable for fire door applications.
 Suitable for Acoustic door applications.
 Suitable for PAS23 & PAS24 applications.
 Suitable for Thermal Insulation applications.
 Avg. Density: $370\text{Kgs/m}^3 = \text{approx: } 16.4\text{Kgs/m}^2$



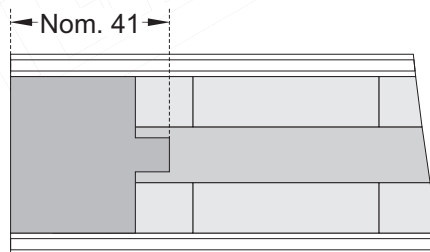
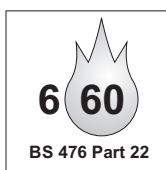
FLAMEBREAK Type 630

Nom. 45mm fin. thickness. Faced with 6mm long grain plywood.
 Suitable for external use.
 Suitable for fire door applications.
 Suitable for Acoustic door applications.
 Suitable for PAS23 & PAS24 applications.
 Suitable for Thermal Insulation applications.
 Avg. Density: $380\text{Kgs/m}^3 = \text{approx: } 16.9\text{Kgs/m}^2$



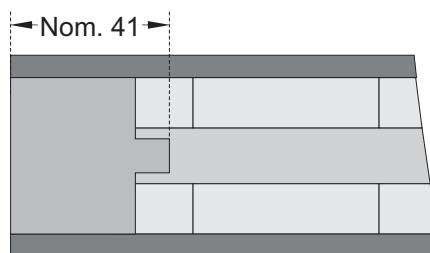
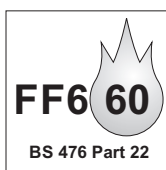
FLAMEBREAK Type FF630

Nom. 44mm fin. thickness. Faced with 6mm Medium Density Fibreboard.
 Suitable for internal painted doors and for facing with veneers or other decorative finishes.
 Suitable for fire door applications.
 Suitable for Acoustic door applications.
 Suitable for PAS23 & PAS24 applications.
 Suitable for Thermal Insulation applications.
 Avg. Density: $470\text{Kgs/m}^3 = \text{approx: } 21\text{Kgs/m}^2$



FLAMEBREAK Type 660

Nom. 54mm fin. thickness. Faced with 6mm long grain plywood.
 Suitable for internal or external use.
 Suitable for fire door applications.
 Suitable for Acoustic door applications.
 Suitable for PAS23 & PAS24 applications.
 Suitable for Thermal Insulation applications.
 Avg. Density: $380\text{Kgs/m}^3 = \text{approx: } 20.5\text{Kgs/m}^2$



FLAMEBREAK Type FF660

Nom. 54mm fin. thickness. Faced with 6mm Medium Density Fibreboard.
 Suitable for internal use.
 Suitable for fire door applications.
 Suitable for Acoustic door applications.
 Suitable for PAS23 & PAS24 applications.
 Suitable for Thermal Insulation applications.
 Avg. Density: $380\text{Kgs/m}^3 = \text{approx: } 20.5\text{Kgs/m}^2$

NOTE: Core perimeter framing can be in one or more pieces.

1.6

FLAMEBREAK™ UK Stock Sizes



44mm FLAMEBREAK™

Door Cores:

FLAMEBREAK™ 430

44mm Thickness
4mm Plywood face.
Paint Grade.

Height mm	Width mm	Pack Qty.
3050	1220	14No.
2032	813	22No.
2745	915	14No.
2440	1220	22No.
2440	915	22No.
2135	1220	22No.
2135	915	22No.
2058	838	22No.
1981	838	22No.
1981	762	22No.

FLAMEBREAK™ UK Stock Sizes:

The following FLAMEBREAK™ cores are generally available for delivery from stocks held in the United Kingdom. Alternative size cores may be manufactured to special order.

FLAMEBREAK™ Door Blanks are also stocked in the United Kingdom with hardwood lippings factory applied to all edges. Consult stockist for further details.

FLAMEBREAK™ FF630

44mm Thickness
6mm MDF face.

Height mm	Width mm	Pack Qty.
2440	1220	22No.
2044	915	22No.
2135	915	22No.
2058	838	22No.

NOTE 1: FLAMEBREAK™ Door blanks in the following dimensions have scarf jointed faces: 3050x1220mm, & 2745x915mm

NOTE 2: 2745 ~ 3050mm high cores supplied without top rail - See page 1.3

54mm FLAMEBREAK™ Door Cores:

FLAMEBREAK™ 660

54mm Thickness
6mm Plywood face.
Paint Grade.

Height mm	Width mm	Pack Qty.
2440	1220	18No.
2135	915	18No.

FLAMEBREAK™ FF660

54mm Thickness
6mm MDF face.

Height mm	Width mm	Pack Qty.
2440	1220	18No.
2135	915	18No.

FSC Certified 44mm FLAMEBREAK™ Door Cores:

FLAMEBREAK™ 430FSC

44mm Thickness
4mm Plywood face.
Paint Grade.

NOTE: FSC Certified door cores are supplied with top rails only as part of the core structure.

These cores must be hardwood lipped for fire door applications.

Height mm	Width mm	Pack Qty.
2440	1220	22No.
2135	915	22No.

FLAMEBREAK™ FF630FSC

44mm Thickness
6mm MDF face.

Height mm	Width mm	Pack Qty.
2440	1220	22No.
2135	915	22No.

FSC Certified 54mm FLAMEBREAK™ Door Cores:

FLAMEBREAK™ 660FSC

54mm Thickness
6mm Plywood face.
Paint Grade.

NOTE: FSC Certified door cores are supplied with top rails only as part of the core structure.

These cores must be hardwood lipped for fire door applications.

Height mm	Width mm	Pack Qty.
2440	1220	18No.
2135	915	18No.

FLAMEBREAK™ FF660FSC

54mm Thickness
6mm MDF face.

Height mm	Width mm	Pack Qty.
2440	1220	18No.
2135	915	18No.

NOTE: Stock sizes identified above are current at the time of publication but may vary according to demand.

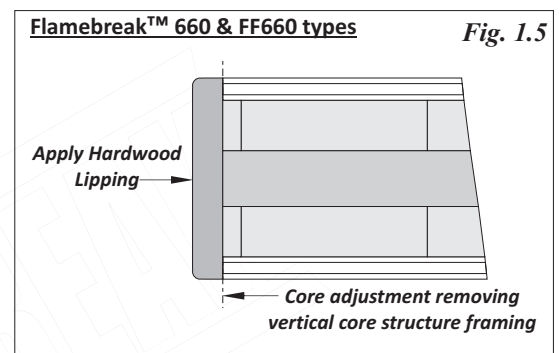
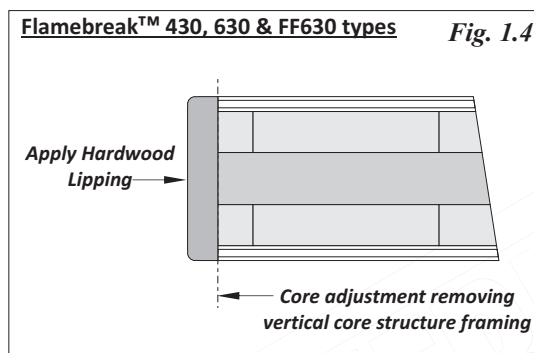
Lipped Stiles

With the exception of FSC Certified - (or unless specified for special order) - Flamebreak™ door cores are supplied with perimeter framing as described by reference to **pages 1.3 & 1.4**.

For door manufacturing / sizing purposes, the vertical core structure framing can be removed completely.

Where the vertical core structure framing is removed on one or both sides of the core the vertical door edges must be hardwood lipped as described by reference to **Section 3 - Facings & Lippings**.

Hardwood lippings complying with Section 3 can also be added to door cores without the necessity to remove the vertical core structure framing.

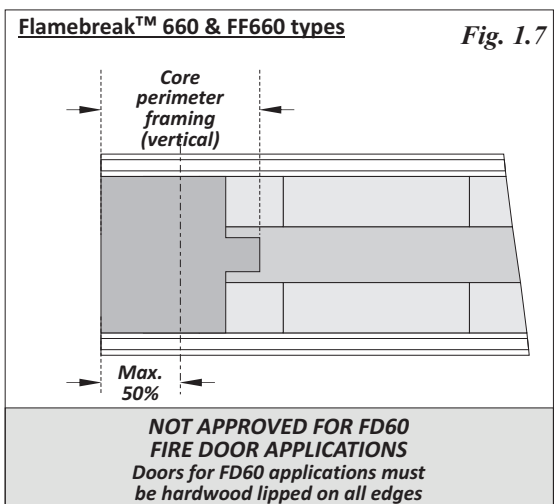
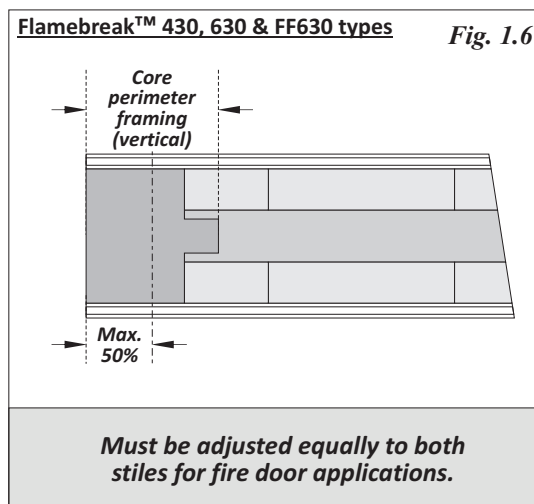


Edge Banded Stiles

With the exception of FSC Certified (or unless specified for special order) Flamebreak™ door cores are supplied with perimeter framing as described by reference to **pages 1.3 & 1.4**.

Use of Flamebreak™ door cores is also approved using an edge banded detail - (where core facing materials are visible at the edge of the door) - without the need to apply additional lippings subject to the following:

- The edge banded option is not approved for FD60 fire door applications
- The vertical core framing can be reduced by a maximum of 50% of the core framing as supplied.
- The vertical core framing must be reduced equally from both sides of the door.



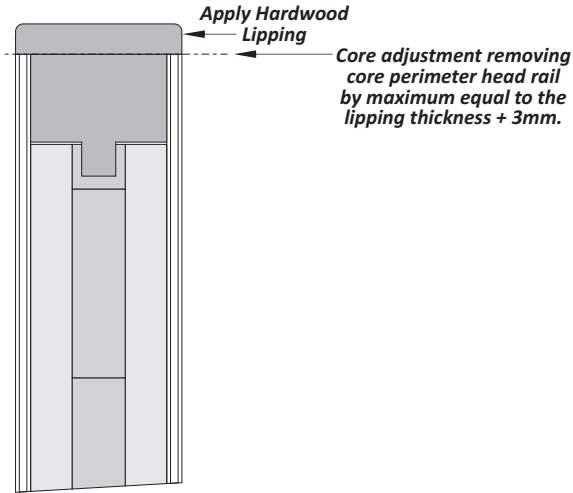
1.8 FLAMEBREAK™ Door Core Adjustments Height Types 430, 630 & FF630



Lipped Head of Door

Flamebreak™ 430, 630 & FF630 types

Fig. 1.8



Approved Adjustments for FD30 Applications - Core construction Top Rail - Flamebreak™ core Types 430, 630 & FF630:

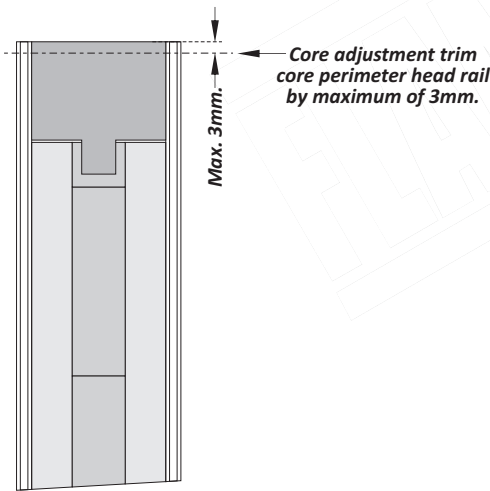
Flamebreak™ 430, 630 & FF630 door cores are supplied with perimeter framing head rails as described by reference to **pages 1.3 & 1.4**.

For door manufacturing / sizing purposes, the head rail can be reduced by a maximum dimension equal to the lipping thickness + 3mm.

Edge Banded Head of Door

Flamebreak™ 430, 630 & FF630 types

Fig. 1.9



Approved Adjustments for FD30 Applications - Core construction Top Rail - Flamebreak™ core Types 430, 630 & FF630:

Flamebreak™ 430, 630 & FF630 door cores are supplied with perimeter framing as described by reference to **pages 1.3 & 1.4**.

Use of Flamebreak™ door cores is also approved using an edge banded detail - (where core facing materials are visible at the edge of the door) - without the need to apply additional lippings subject to the following:

- The core construction top rail may be reduced by a maximum of 3mm.

Bottom Rail Adjustments

Approved Adjustments - Core construction Bottom Rail - Flamebreak™ core Types 430, 630 & FF630:

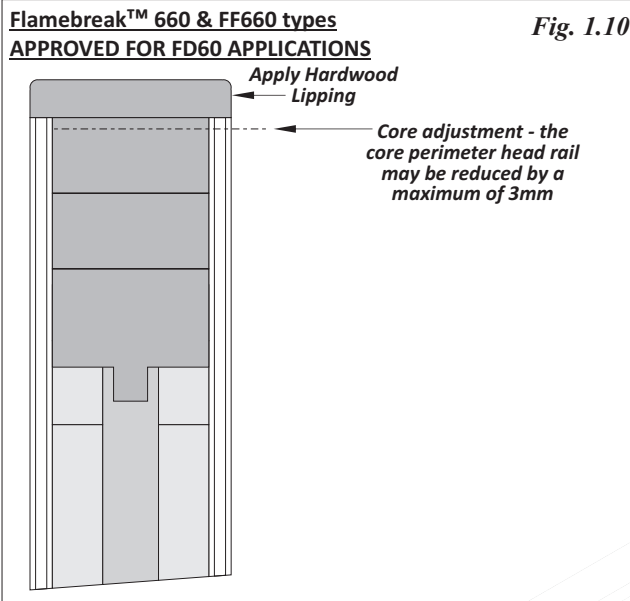
Flamebreak™ 430, 630 & FF630 door cores are supplied with perimeter framing as described by reference to **pages 1.3 & 1.4**.

The core construction bottom rail can be removed completely without the necessity to lip the bottom edge.

NOTE: When the core construction bottom rail is removed, the use of hardwood lippings is strongly recommended where doors are to be used in external locations or for internal locations likely to be subjected to wet conditions.



Lipped Head of Door



Approved Adjustments for FD60 Applications - Core construction Top Rail - Flamebreak™ core Types 660 & FF660:

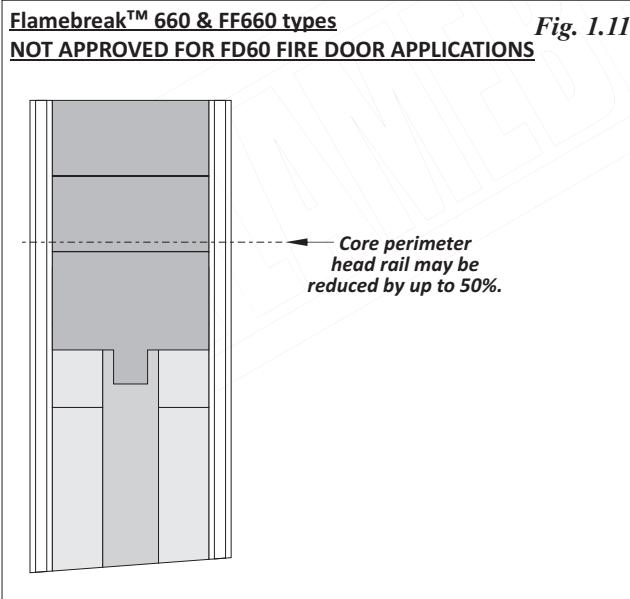
Flamebreak™ door cores are supplied with perimeter framing head rails as described by reference to *pages 1.3 & 1.4*.

For door manufacturing / sizing purposes, the core perimeter framing head rail can be reduced by a maximum of 3mm.

Door used for FD60 applications must be hardwood lipped on the top edge. **See Section 3.**

For FD60 applications doors must be hardwood lipped on all edges.

Edge Banded Head of Door



Approved Adjustments - Core construction Top Rail - Flamebreak™ core Types 660 & FF660 **NOT APPROVED FOR FD60 FIRE DOOR APPLICATIONS**

Flamebreak™ 660 & FF660 door cores are supplied with perimeter framing as described by reference to *pages 1.3 & 1.4*.

For uses excluding FD60 fire door applications, the perimeter head rail may be reduced by up to 50% to provided for an edge banded appearance without the need to apply lippings.

Bottom Rail Adjustments

Approved Adjustments - Core construction Bottom Rail - Flamebreak core Types 660 & FF660:

Flamebreak™ 660 & FF660 door cores are supplied with perimeter framing as described by reference to *pages 1.3 & 1.4*.

The core construction bottom rail can be reduced or removed completely but for FD60 applications a bottom edge lipping must be applied. **See Section 3.**

For FD60 applications doors must be hardwood lipped on all edges.

NOTE: When the core construction bottom rail is removed, the use of hardwood lippings is strongly recommended where doors are to be used in external locations or for internal locations likely to be subjected to wet conditions.

