



HALSPAN® to the core and more...



Three Layer Particle Board

Technical Reference Pack





In the 1990s Halspan developed an entirely new way of constructing doors, using pre-tested door blanks made from a unique 3-layer particle board. For the industry, having Halspan at the core of a door has been an assurance of quality and integrity ever since.

Over the years, we've extended our product range so that today Halspan offers the full system of components used in the manufacture of doorsets and door assemblies, all backed by third-party certification. You can't get a better or safer doorset or door assembly, guaranteed.

to the core and more...

This pack refers to Three Layer Particle Boards, and should be read in conjunction with relevant product 3rd Party Scope Data and supporting detail drawings.



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Three Layer Particle Board

Fire Doors - FD

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Prima Plus (NAF - No Added Formaldehyde)

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Separate Appendix Documents:

Relevant 3rd Party Scope Data

Supporting Detail Drawings (PDF and CAD format)

3-layer Particle Board

Halspan 3-layer particle board has been designed for use in the fabrication of solid core doors.



A complex combination of chemical and engineering development has resulted in the superior quality and strength of Halspan high performance timber door blanks. Produced on one of the world's most advanced CPS systems ensure continuity of quality for the product. It is this expertise that sets Halspan above other door constructions.

Halspan door blanks have been ready tested for use in the manufacture of fire doors.

By using Halspan in the construction of flush or panelled doors, Halspan's pre-test programme readily enables the inclusion of fire doors of the same style and finish as the standard, non-fire door specification.

These high standards, applied in making Halspan door blanks, also apply to Halspan's technical support. Literature and advice provide a continuity of quality right through, from manufacture to installation. Always ensuring the highest standards for you and your customer.



Fire

Independent Verification

Reassures customers on the consistent quality of products they specify or use. BM Trada, IFC Certification and Certifire provide such schemes for fire doors.

The Halspan Proposition

Specialist joiners and fabricators can use Halspan door blanks in the manufacture of certified doorsets and door assemblies.

- Our extensive testing and certification to strict international standards, covering fire resistance, acoustic, durability and environmental performance, means you have more choice and design flexibility
- Specifying and approving Halspan at the core of a door is an assurance of quality and integrity, which provides complete peace of mind
- We provide guidance and technical support to ensure you specify the right products
- NBS Plus and CSI format specifications, NBS BIM, CAD detailing and supporting technical literature resources are also available for ease of specification.

By specifying or selecting a certified product you can be assured that it has demonstrated the required performance levels through independent accredited testing or appraisal and that every product manufactured offers the same level of performance through an approved quality management system.



Acoustic

Door assemblies within buildings form part of their internal fabric and as such may often be required to offer noise reduction performance, or sound attenuation.

The acoustic performance of a door assembly design can be established in laboratory test to BS EN ISO 140-3:1995 (formally BS2750pt 3:1980). Airborne sound transmission is determined from the difference in sound pressure levels measured across a test sample (door assembly) installed between two reverberant rooms (SRL 2003). The 'transmitting room' and 'receiving' rooms are calibrated such that the sound signals are filtered into 1/3 octave bands, integrated and averaged.

The difference in values between the two rooms will give an average reduction value of performance across the frequency range. The Sound Reduction Index (R) is also known by the American terminology Sound Transmission Loss (STC) and is defined as the number of decibels by which sound energy randomly incident on the test sample is reduced in transmitting through it (SRL 2003).

These laboratory figures give an average value of sound attenuation over the 100Hz to 3150Hz frequency range but cannot give a snapshot view of performance in the



Acoustic cont.

evaluation of the acoustic performance of products in building. So, to produce a value which more reflects human hearing and perception the figures are correlated to a standard reference curve with a single value output. The methodology for this is process is defined in BS ENISO 717-1: 1997 (formally BS 5821: 1984). The output is described as the Weighted Sound Reduction Index (Rw).

Laboratory Results Versus Site Performance

As in fire situations, the tested door set up is rarely replicated on site. Therefore, if there is a measurement of sound reduction on site, the results will depend on a number of factors – volume and occupancy of transmitting room, volume and occupancy of receiving room, area of wall/partition, performance of wall/partition, accuracy of installation of door assembly, floor and wall finishes etc...Inevitably, in practise, the potential sound reduction of a door assembly is never achieved on site.

Halspan And Acoustic Performance

Halspan has been extensively tested using various perimeter sealing options in single and double door configurations and including glazing. The laboratory testing methodology described has been employed.

Please refer to the Halspan Acoustic Topic Brochure for specifications and sealing options for the various configurations that have been approved.



Environment

All our door blanks and cores are manufactured using raw materials from sustainable, managed sources. Certified to both FSC and PEFC Chain of Custody, they also comply with EU Timber Regulations. For an even greener alternative, Halspan Prima Plus, Veria door blanks and cores with no added formaldehyde (NAF) minimise formaldehyde emissions and improve indoor air quality, complying with both BREEAM and LEED environmental standards.

FSC Certification



Halspan holds The Forest Stewardship Council global certification. This scheme enables consumers to identify and purchase wood from well-managed forests. Halspan door blanks are FSCTM COC certified.

PEFC Certification



PEFC Certified
This product is from sustainably managed forests and controlled sources
www.pefc.co.uk

We also hold certification for the Programme for the Endorsement of Forest Certification, which is dedicated to both sustainable forest management and timber processing.



Durability

Halspan doors in full door assembly mode (nominal 2100mm x 900mm, unglazed) have been tested in single action single and double action single mode and achieved Severe Duty grading.

Testing

Every Halspan door assembly is subjected to rigorous, independent mechanical and durability tests.

They are tested for:

- Vertical load
- Static torsion
- Soft and heavy body impact
- Slamming shut
- Slamming open
- Closure against obstruction
- Resistance to jarring and vibration
- Abusive force on handles
- Operating forces
- Cycling – as an indication of anticipated service life



BS Mechanical Tests

Mechanical Tests: Procedure

The tests were conducted in accordance with the British Standard Draft for Development DD171:1987: “Guide to specifying performance requirements for hinged or pivoted doors (including test methods)”, and the corresponding EU norms.

The British Draft standard grading’s defined as follows:

LD - Light Duty

Low frequency of use by those with a high incentive to exercise care
– small chance of accident occurring or misuse.

MD - Medium Duty

Medium frequency of use primarily by those with some incentive to exercise care
– some chance of accident occurring or misuse.

HD - Heavy Duty

High frequency of use by public and others with little incentive to exercise care.
Chance of accident occurring or misuse



BS Mechanical Tests cont.

Our entire range achieved the highest grading possible in the British Standard of Mechanical Tests for 'hinged or pivoted doors':

SD - Severe Duty

Subject to frequent or violent usage.

All products within the Halspan range meet the specifications for durability to BS EN 1191:2000.

For more information please refer to the **Tried and Tested** brochure.



Safety Data

Handling and Storage

When handling with mechanised handling equipment, such as fork trucks and pallet trucks, care should be taken to observe the weight restrictions of the equipment and safe working practices.

When manually handling, care should be taken to avoid the product sliding through the hands, wearing gloves if frequently handling boards, especially re-cut material.

It is recommended that Halspan is stored in a dry controlled area similar in ambient condition to that intended for further production. Areas for storing the product should be dry and adequately ventilated; making sure the material is not subjected to excesses of humidity and temperature.

In storage, care should be taken to stack material safely. Store flat and level on at least three equal spaced, equal height bearers.

Transport Considerations

Ensure that material is adequately packed and properly secured on the vehicle to prevent any movement. Goods should be conveyed in such a manner as to avoid movement and slipping.

Particular care should be taken with laminated products, as the possibility of movement maybe increased.

Health Hazards

This product is bonded using urea formaldehyde resins and in it's recently pressed state, or when being cut or worked, may possibly out-gas formaldehyde. The product is manufactured to the emission class E1 of the EU Standard.



Safety Data cont.

Care should be taken to ensure adequate ventilation and control of the environment and to ensure prevention of exposure for persons likely to be particularly sensitive to the effects of formaldehyde, i.e. Asthma sufferers or those likely to contract skin rashes.

When processed, this product produces wood dust which can act as a skin or respiratory irritant. Adequate ventilation and dust and waste extraction should be provided to ensure that the workplace complies with COSHH Regulations 1988 and Guidance Note EH40/89.

Adequate control of exposure by employees to formaldehyde and wood dusts will automatically provide control against other aldehydes and ammoniacal compounds, which can be produced when machining particle board, especially if blunt tools are used.

Fire And Explosion

There is no risk of explosion with this product, but users should be aware that airborne wood dust produced during processing could present a fire hazard. **Do not smoke.**

Ensure efficient and continuous dust extraction during processing.

The product burns in a similar manner to natural timber. Normal firefighting procedures should be observed.used.



First Aid

Inhalation of wood dust

- Remove person to fresh air. Clean nasal passages.

Wood dust in eyes

- Flush eyes with tepid water for 15 minutes.

Affected by formaldehyde

- Remove person to fresh air. Drink copious volumes of fluid.
- If no recovery is made, immediate medical advice should be sought.

Personal Protection

An ori-nasal mask to BS6016 and eye shield to BS2092 are recommended.

Installation Guide

FIRE DOOR SITE FIXING INSTRUCTIONS

1. Surrounding Structure

Frame, support wall construction

The frames must be fixed back to stud partitions, blockwork, brickwork or concrete walls, at centres not exceeding 600mm.

Timber 'sub-frames' may be incorporated as a solid packer between the opening in the supporting constructions and the rear face of the frame member of the door assembly. The sub-frame must cover the full surface of the rear of frame member and be continuous for the full door assembly height/width. The timber shall be of the same density and structural quality as that specified for the frame itself.

The gap between sub-frame/finished opening plus frame, not to exceed 10mm, should be filled with non-combustible material and capped off with intumescent mastic or the inclusion of an intumescent strip on the reverse of the frame.

2. Timber Frames

Frames and stops can be hardwood for FD60. See the relevant section in this Technical Support Manual for the specification.

The rear of the frame has to be protected. Where sub-frames/extension linings are used, the joint between the main-frame and the sub-frame must not intrude into the plane of the door assembly height/width.

Where an integral architrave is used, the face of the door must not protrude beyond the face of the wall. Usually the rear of the frame is protected by the adjacent wall, without excessive gaps, and the frame does not project out from the wall. If not, special assessment will need to be sought.

Stops

Stops to be minimum 12mm wide, machines from solid or planted, pinned only, using 40mm steel pins.

Head/Jamb Joint

Mortice and tenon or half-lapped joint, head twice screwed to jambs.

Architraves

Architraves are optional and have no performance requirements.

3. Hanging Leaves Gaps

Doors should be hung to give an equal gap across the head and down both jambs, the gap not to exceed 4mm.

The gap between the door and the frame should not exceed 4mm, the gap at the meeting stile should not exceed 4mm and the doors should not be proud of the frame reveal by more than 3mm.

Smoke seals which require a larger gap should remain within tested tolerances

4. Glazing

On-site cutting of apertures is permissible with Halspan.

5. Ironmongery

Lock bodies strikes and lock fore ends must be bedded on 1mm Interdens, 1mm Halspan graphite or 2mm Therm-A-Strip.

Door closers should be supplied with intumescent gaskets, wherever applicable.

6. Pre-Installation Handling & Storage

If storing finished doors, door assemblies and door kits, they should be protected from rain and sun, preferably in a ventilated building.

Fire doors are for internal installation and should also be protected from exposure to excessive moisture and splashing by corrosive or staining materials.

Store horizontally on 3 or more equally spaced bearers, away from floor or ground. Keep in wrappings as long as possible.

Protect glazed doors

Use spacers between stored doors to prevent glazing beads from damage.

Unlaquered doors

Should have a coat of seal applied as soon as possible.

Laminate faced doors

Refer to manufacturer's guide on care and maintenance.

Protect facings

Door assembly timber components that are to receive a clear finish, or veneered surfaces, should not be exposed to strong lights, daylight or uneven light during storage as this can cause differential fading.

Cleaning veneered doors

Clean veneered doors and panels by wiping with a damp cloth. Do not use abrasive or chemical cleaners. If necessary, use a mild detergent solution.

Smoke and heat activated seals

Heat activated seals and smoke seals can easily be damaged. When supplied separately, for fixing after installation of the door assembly, they should be kept wrapped in a dry, ventilated environment and be clearly identified.

7. Fixing & sealing to structural openings

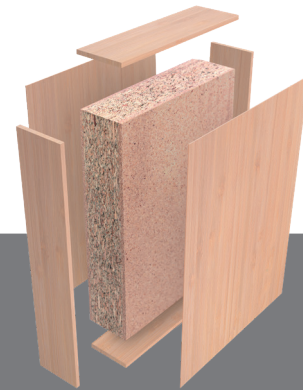
Guidance for fixing door assemblies, and methods of providing an adequate fire resistant seal to the structural opening, is documented in BS8214: 1990 code of practice for "Fire door assemblies with non-metallic leaves". This should be referred to where necessary.

8. On-site instructions

These on-site instructions refer only to fire doors manufactured with Halspan high performance door blanks. Otherwise, general application must comply with test requirements of individual suppliers.

Data Sheets







Prima 44mm

Fire Rated Interior Grade Door Blanks

Prima internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance.



Fire Rating FD30

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		 
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2900 x 1203mm	
		3317 x 1050mm	
	Double Doors	2900 x 1153mm	
		3342 x 928mm	
Approved Frames	Timber Hardwood, Timber Softwood, MDF, Steel, Aluminium		
Approved Glazing Size	1.75m ²		
Panel Effect	Yes		
Feature Grooves	Yes		




Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 32dB/Rw
		Glazed 35dB/Rw



Environmental

U-value (Wm²K)	Heat loss per m ² 2.00 (doorset)	
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	



Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
Enhanced security performance requirements of door set	Tested to comply with PAS 23 & PAS 24



General Properties

Weight	27.7 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%

Prima 44mm

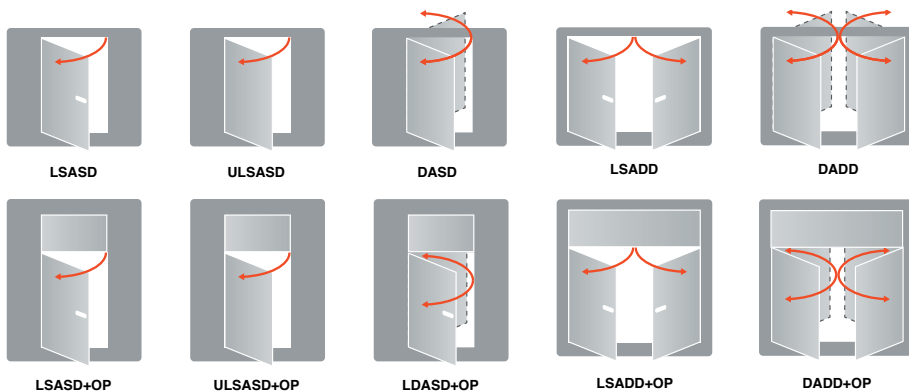
Fire Rated Interior Grade Door Blanks



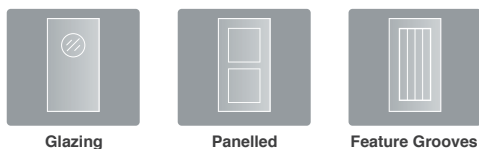
Design Criteria

Stock Board Sizes	2060 x 840 mm 2135 x 915 mm 2440 x 1220 mm 2440 x 915 mm 2800 x 1830 mm 3050 x 1050 mm	Lipping Glue Lines	PVA PVAC U/F PU Hot Melt
		Lipping Section Details	6 mm
		Rebates (Double doors, etc)	Yes
		Standard Intumescent	Palusol Graphite

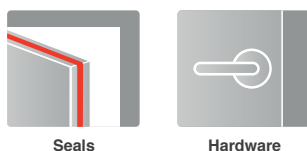
Doorset Configurations



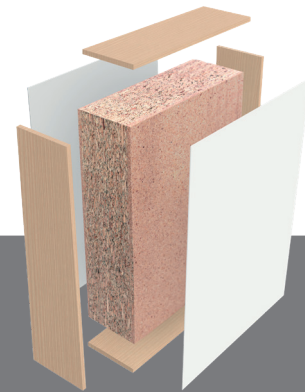
Design options



Seals & Hardware



Refer to relevant product Global Assessment and literature for further information.
 For technical guidance please contact the technical support team - technical@halspan.com





Prima 54mm

Fire Rated Interior Grade Door Blanks

Prima internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance.



Fire Rating FD60

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		 
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2441 x 1384mm	
		3050 x 825mm	
	Double Doors	2300 x 1142mm	
		2800 x 825mm	
Approved Frames	Timber Hardwood, MDF, Steel		
Approved Glazing Size	0.82m ²		
Panel Effect	Yes		
Feature Grooves	Yes		




Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw



Environmental

U-value (Wm²K)	Heat loss per m ² 2.00 (doorset)	
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	



Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
Enhanced security performance requirements of door set	Tested to comply with PAS 24



General Properties

Weight	27.7 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%

Prima 54mm

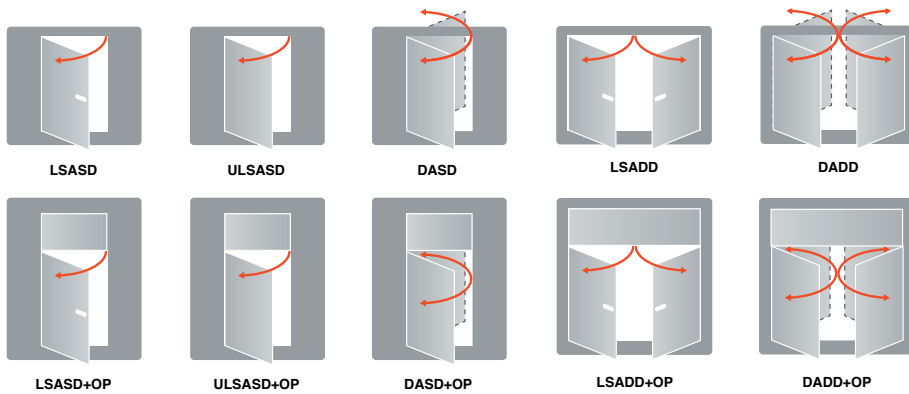
Fire Rated Interior Grade Door Blanks



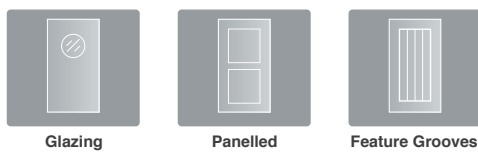
Design Criteria

Stock Board Sizes	2135 x 915 mm 2800 x 915 mm 2440 x 1220 mm 3050 x 1050 mm 2440 x 915 mm 2800 x 1830mm	Lipping Glue Lines	PVA PVAC U/F PU Hot Melt
		Lipping Section Details	6 mm
		Rebates (Double doors, etc)	Yes

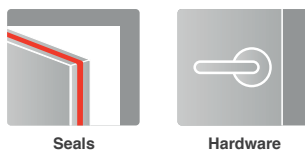
Doorset Configurations



Design options



Seals & Hardware



Refer to relevant product Global Assessment and literature for further information.

For technical guidance please contact the technical support team -

technical@halspan.com



Prima Plus 44mm

Fire Rated Interior Grade Door Blanks

Prima Plus internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance, with the additional benefit of not having formaldehyde added to their construction.



Fire Rating FD30

Tested in Accordance with:	BS 476: Part22: 1987		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2040 x 1080mm	
		2428 x 900mm	
	Double Doors	2040 x 1030mm	
		2328 x 900mm	
Approved Frames	Timber Hardwood, Timber Softwood, MDF		
Panel Effect	No		
Feature Grooves	Yes		





Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 31dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 32dB/Rw
		Glazed 35dB/Rw



Environmental

U-value (Wm2K)	Heat loss per m ² 1.6 (doorset)		
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1		



Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
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General Properties

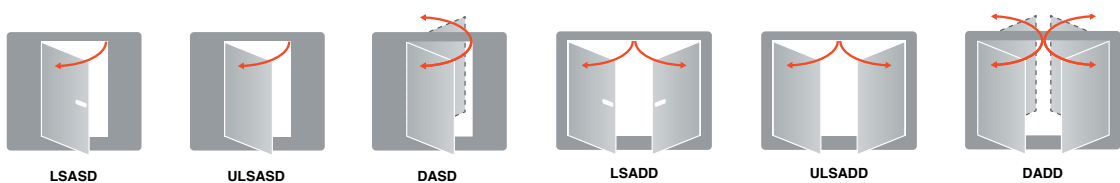
Weight	24.3 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%



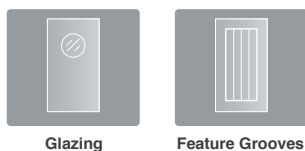
Design Criteria

Lipping Glue Lines	PVAC U/F PU PU based Hotmelt
Lipping Section Details	6 mm
Rebates (Double doors, etc)	Yes
Standard Intumescent	Halspan Intumescent Kit

Doorset Configurations



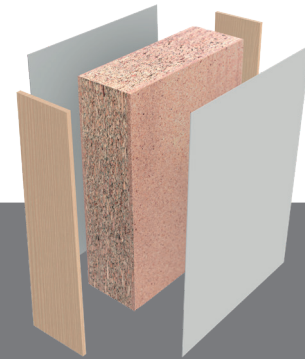
Design options



Seals & Hardware



Refer to relevant product Global Assessment and literature for further information.
For technical guidance please contact the technical support team -
technical@halspan.com



Prima Plus 54mm

Fire Rated Interior Grade Door Blanks

Prima Plus internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance, with the additional benefit of not having formaldehyde added to their construction.



Fire Rating FD60

Tested in Accordance with:	BS 476: Part22: 1987		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2039 x 901mm	
		2189 x 826mm	
	Double Doors	2039 x 851mm	
		2089 x 826mm	
Approved Frames	Timber Hardwood, MDF		
Approved Glazing Size	0.50m ²		
Panel Effect	No		
Feature Grooves	Yes		





Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw



Environmental

U-value (Wm2K)	Heat loss per m ² 1.8 (doorset)		
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1		



General Properties

Weight	31.3 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%



Design Criteria

Lipping Glue Lines	PU Based Hotmelt PVAC U/F PU
Lipping Section Details	6 mm
Rebates (Double doors, etc)	Yes

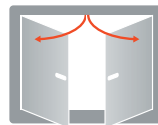
Doorset Configurations



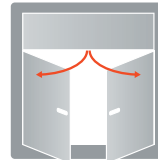
LSASD



ULSASD



LSADD



LSADD+OP

Design options



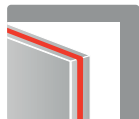
Glazing



Feature Grooves



Seals & Hardware

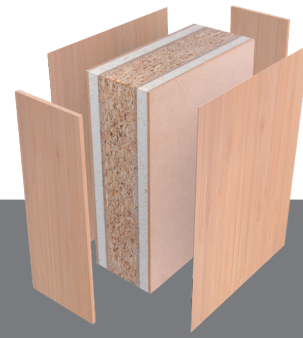


Seals



Hardware

Refer to relevant product Global Assessment and literature for further information.
For technical guidance please contact the technical support team -
technical@halspan.com




Prima Plus 62mm

Fire Rated Interior Grade Door Blanks

Halspan Prima Plus 90 internal fire door blanks feature Halspan's unique 3-layer particle board with additional mineral layer enhancement. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance, with the additional benefit of not having formaldehyde added to their construction.



Fire Rating FD90

Tested in Accordance with:	BS 476: Part22: 1987		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2400 x 1297mm	
		3103 x 1000mm	
	Double Doors	2400 x 1272mm	
		3050 x 1000mm	
Approved Frames	Timber Hardwood		
Panel Effect	No		
Feature Grooves	No		

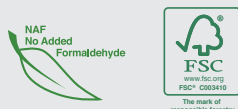


Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
	Double Doors	Unglazed 36dB/Rw



Environmental



General Properties

Weight	50 kg/m ²
Moisture Content	Ex factory 6-10%



Design Criteria

Lipping Glue Lines	PU
Lipping Section Details	3 mm
Standard Intumescent	Halspan Intumescent Kit

Doorset Configurations



LSASD



LSADD



Seals & Hardware

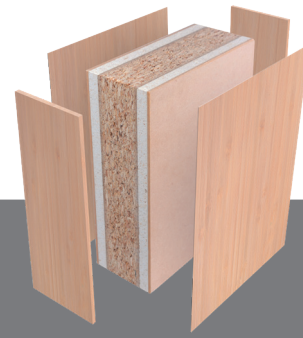


Seals



Hardware

Refer to relevant product Global Assessment and literature for further information.
 For technical guidance please contact the technical support team -
technical@halspan.com




Prima Plus 62mm

Fire Rated Interior Grade Door Blanks

Halspan Prima Plus 120 internal fire door blanks feature Halspan's unique 3-layer particle board with additional mineral layer enhancement. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance, with the additional benefit of not having formaldehyde added to their construction.



Fire Rating FD120

Tested in Accordance with:	BS 476: Part22: 1987		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2400 x 1105mm	
		2640 x 1000mm	
	Double Doors	2400 x 1079mm	
		1590 x 1000mm	
Approved Frames	Timber Hardwood		
Panel Effect	No		
Feature Grooves	No		





Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
	Double Doors	Unglazed 36dB/Rw



Environmental



General Properties

Weight	50 kg/m ²
Moisture Content	Ex factory 6-10%



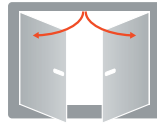
Design Criteria

Lipping Glue Lines	PU
Lipping Section Details	3 mm
Standard Intumescent	Halspan Intumescent kit

Doorset Configurations



LSASD



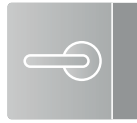
LSADD



Seals & Hardware



Seals

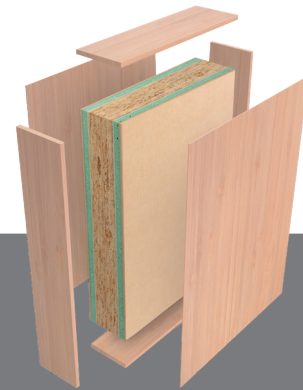


Hardware

Refer to relevant product Global Assessment and literature for further information.

For technical guidance please contact the technical support team -

technical@halspan.com



Prima Plus ENH 44mm

Fire Rated Interior Grade Door Blanks

This **Halspan Prima Plus Enhanced Blank** is a multi-layer construction incorporating a timber strand core, with non-combustible faces and a HDF outer face, ready for direct application of veneer, HPL or paint. This sandwich construction is homogenous. The blank can be re-sized within reasonable limits. There is no need or requirement for internal stiles and rails. The blank construction contains no Added Urea Formaldehyde and is available as COC FSC mix credit.



Fire Rating FD60

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		 
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2400 x 1350mm	
		2700 x 1200mm	
	Double Doors	2400 x 1300mm	
		2600 x 1200mm	
Approved Frames	Timber Hardwood, Steel Backfilled		
Approved Glazing Size	1.08m ²		
Panel Effect	No		
Feature Grooves	Yes		

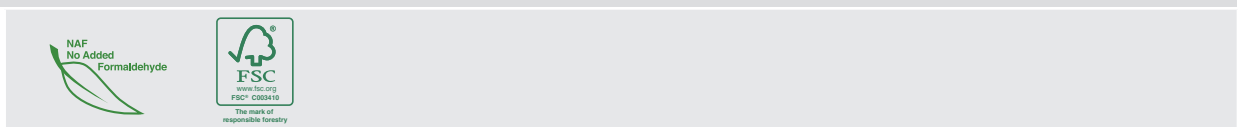


Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 35dB/Rw
	Double Doors	Unglazed 34dB/Rw



Environmental



General Properties

Weight	34 kg/m ²
Core Density (±10%)	600 kg/m ³
Facings Density (±10%)	750 kg/m ³
Moisture Content	Ex factory 6-10%



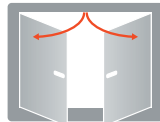
Design Criteria

Lipping Glue Lines	PU
Lipping Section Details	6 mm
Rebates (Double doors, etc)	Yes
Standard Intumescent	Graphite

Doorset Configurations

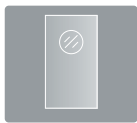


LSASD



LSADD

Design options



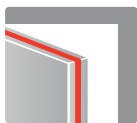
Glazing



Feature Grooves



Seals & Hardware

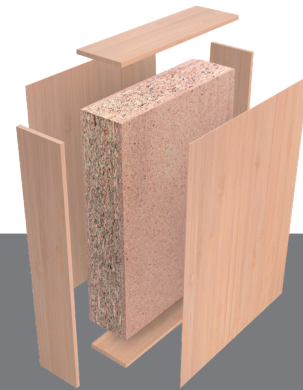


Seals



Hardware

Refer to relevant product Global Assessment and literature for further information.
For technical guidance please contact the technical support team -
technical@halspan.com




Optima 44mm

Fire Rated Interior Grade Door Blanks

Optima internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a combination of chemical and engineering development, these blanks produce doors of altogether excellent quality, strength and overall performance.



Fire Rating FD30 - BS EN

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2135 x 1200mm 2800 x 915mm	
	Double Doors	2135 x 1100mm 2600 x 910mm	
Approved Frames	Timber Hardwood, Timber Softwood, MDF, Steel, Aluminium		
Approved Glazing Size	1.75m ²		
Panel Effect	Yes		
Feature Grooves	Yes		



Fire Rating 20 Min - UL 10c

Tested in Accordance with:	UL 10C		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2438 x 1219mm	
	Double Doors	2438 x 1219mm	
Approved Frames	Timber Hardwood, Steel, Composite		




Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 32dB/Rw
		Glazed 35dB/Rw



Environmental

Standard	ISO 14001	
U-value (Wm2K)	Heat loss per m ² 2.00 (doorset)	
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	



Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
Enhanced security performance requirements of door set	Tested to comply with PAS 24

Optima 44mm

Fire Rated Interior Grade Door Blanks



General Properties

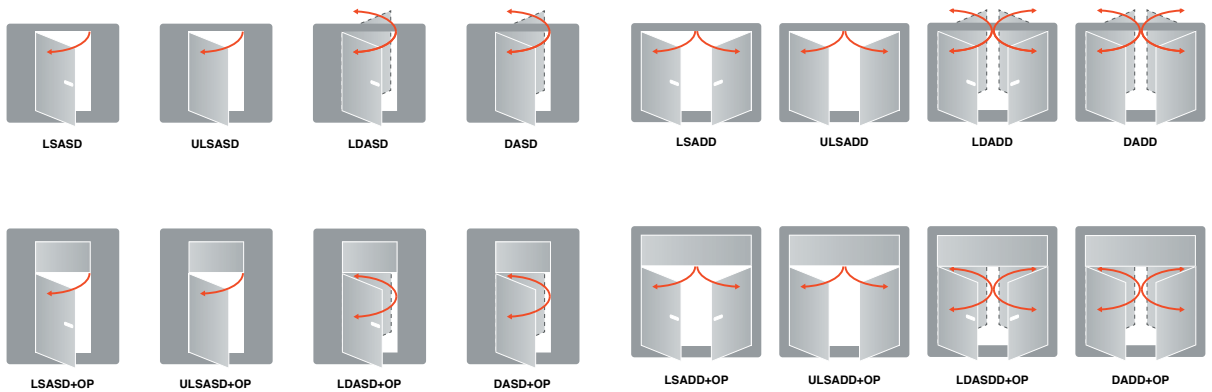
Weight	27.3kg/m ²
Density (±10%)	620 kg/m ³
Moisture Content	Ex factory 6-10%



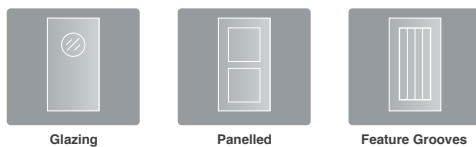
Design Criteria

Stock Board Sizes	2060 x 840 mm	Lipping Glue Lines	PVA
	2135 x 915 mm		PVAC
	2440 x 915 mm		U/F
	2800 x 915 mm		PU
	2440 x 1220 mm	Lipping Section Details	6 mm
	2800 x 1830 mm	Rebates (Double doors, etc)	Yes
	3050 x 1050 mm	Standard Intumescent	Palusol Graphite
	2060 x 840 mm		

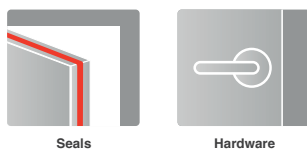
Doorset Configurations



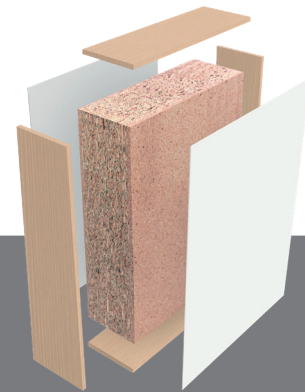
Design options



Seals & Hardware



Refer to relevant product Global Assessment and literature for further information.
For technical guidance please contact the technical support team - technical@halspan.com





Optima 54mm

Fire Rated Interior Grade Door Blanks

Optima internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a combination of chemical and engineering development, these blanks produce doors of altogether excellent quality, strength and overall performance.



Fire Rating FD60

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		 
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2441 x 1384mm	
		3050 x 825mm	
	Double Doors	2300 x 1142mm	
		2850 x 825mm	
Approved Frames	Timber, Hardwood, MDF		
Approved Glazing Size	0.82m ²		
Panel Effect	No		
Feature Grooves	Yes		




Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw



Environmental

U-value (Wm2K)	Heat loss per m ² 1.8 (doorset)	
Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	



Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
Enhanced security performance requirements of door set	Tested to comply with PAS 24



General Properties

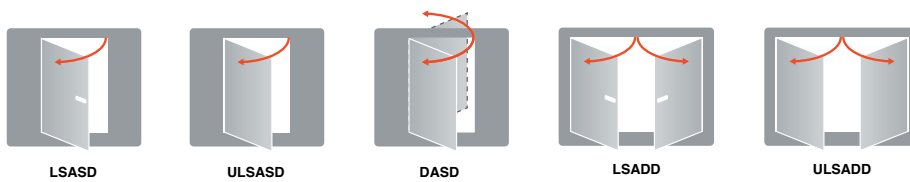
Weight	33.5kg/m ²
Density (±10%)	620 kg/m ³
Moisture Content	Ex factory 6-10%



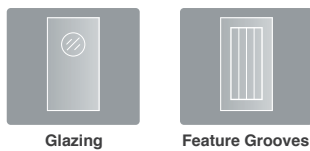
Design Criteria

Stock Board Sizes	2135 x 915 mm 2440 x 915 mm 2440 x 1220 mm 2800 x 915 mm 2800 x 1830 mm 3050 x 1050 mm	Lipping Glue Lines	PVA PVAC U/F PU
		Lipping Section Details	10 mm
		Rebates (Double doors, etc)	Yes

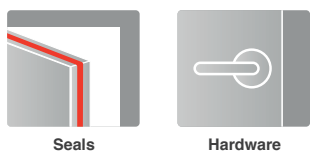
Doorset Configurations



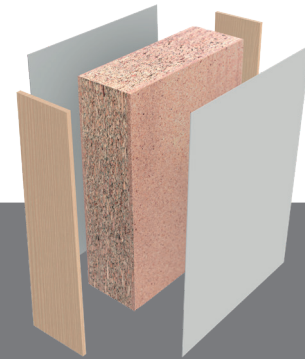
Design options



Seals & Hardware



Refer to relevant product Global Assessment and literature for further information.
 For technical guidance please contact the technical support team -
technical@halspan.com



Halspan 90 64mm

Fire Rated Interior Grade Door Blanks

Halspan 90 internal fire door blanks feature Halspan's unique 3-layer particle board. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance.



Fire Rating FD90

Tested in Accordance with:	BS 476: Part22: 1987, BS EN 1634-1:2000/2008 & BS EN 1363-1:1999		 
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2800 x 1020mm	
		2856 x 1000mm	
	Double Doors	2150 x 940mm	
		2200 x 915mm	
Approved Frames	Timber Hardwood		
Approved Glazing Size	0.56m ²		
Panel Effect	No		
Feature Grooves	No		




Acoustics

Tested in Accordance with:	BS EN ISO 10140-2:2010	
Acoustic Performance	Single Doors	Unglazed 34dB/Rw
		Glazed 35dB/Rw
	Double Doors	Unglazed 33dB/Rw
		Glazed 35dB/Rw



Environmental

Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	
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Operational & Durability

Tested in Accordance with:	DD 171, EN 1191, EN 1192, EN 947, EN 949 & EN 950
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General Properties

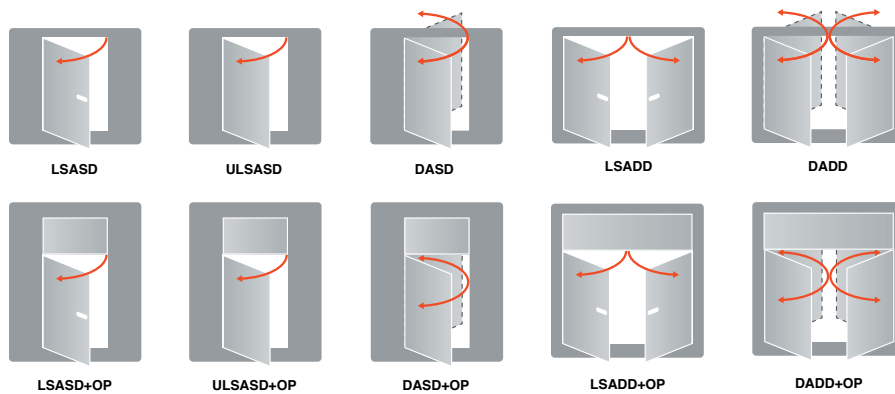
Weight	40.3 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%



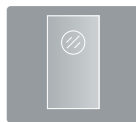
Design Criteria

Stock Board Sizes	2150 x 1040 mm
Lipping Glue Lines - Timber	PVA PVAC U/F PU Hot Melt
Lipping Section Details	3mm
Rebates (Double doors, etc)	No

Doorset Configurations



Design options



Glazing



Seals & Hardware

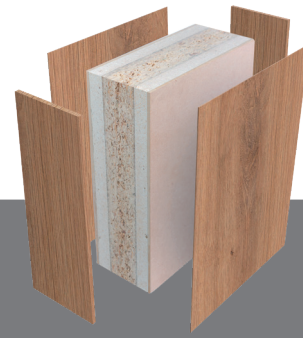


Seals



Hardware

Refer to relevant product Global Assessment and literature for further information.
For technical guidance please contact the technical support team -
technical@halspan.com



Halspan 120 60mm

Fire Rated Interior Grade Door Blanks

Halspan 120 internal fire door blanks feature Halspan's unique 3-layer particle board with additional mineral layer enhancement. Specifically designed for the purpose, using a complex combination of chemical and engineering development, these blanks produce doors of altogether superior quality, strength and overall performance.



Fire Rating FD120

Tested in Accordance with:	BS 476: Part22: 1987		
Maximum Approved Sizes (Please check standard supplied sizes shown overleaf)	Single Doors	2395 x 1022mm	
		2660 x 915mm	
	Double Doors	2395 x 997mm	
		2610 x 915mm	
Approved Frames	Timber Hardwood		
Approved Glazing Size	0.50m ²		
Panel Effect	No		
Feature Grooves	No		




Acoustics

Tested in Accordance with:	BS 476: Part 22:1987	
Acoustic Performance	Single Doors	Unglazed 38dB/Rw
	Double Doors	Unglazed 37dB/Rw



Environmental

Formaldehyde Release Rating	BS EN 13986 (2004) – Class E1	
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General Properties

Weight	48 kg/m ²
Density (±10%)	630 kg/m ³
Moisture Content	Ex factory 6-10%



Design Criteria

Stock Board Sizes	2200 X 930mm 2390 X 1190mm
Lipping Glue Lines	PVA PU Water based inorganic

Doorset Configurations

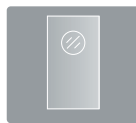


LSASD



LSADD

Design options



Glazing



Seals & Hardware



Seals



Hardware

Refer to relevant product Global Assessment and literature for further information.

For technical guidance please contact the technical support team -

technical@halspan.com



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