High Wycombe Office:
Chiltern House, Stocking Lane,
High Wycombe,
HP14 4ND,
United Kingdom
T: +44 (0)1494 569750
W: www.warringtonfire.com

Title

Field of Application for:
Halspan® Prima 30 Doorsets
Part 1: Timber based frames

For 30 minutes Fire Resistance

Report No.:

FEA/F97174 Revision J – Part 1

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Prepared for:

Halspan Ltd.
Regent House,
Regent Centre,
West Lothian,
EH49 7HU
United Kingdom

The version/revision stated on the front of this Field of Application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

Registered Office:
Warringtonfire Testing and Certification Limited, 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, United Kingdom Co. Reg. No. 11371436

9 Intumescent

9.1 Essential Hardware Protection

The intumescent materials tested and assessed for this doorset design are as follows:

Hardware Intumescent Specification		
Application	Location	Product & Manufacturer
Butt Hinges	Not required for Frame 1, 2, 3, 5 & 6	
	For frame 4 & 7 under both hinge blades	1mm Therm-A-Strip – Intumescent Seals Ltd 1mm Interdens – Dufaylite Developments Ltd
	With concealed intumescent (see section 9.2) under both hinge blades	1mm Lorient Interdens
Lock/latches	Under forend & keep if the forend or keep exceeds 150mm up to the maximum assessed dimension	1mm Interdens – Dufaylite Developments Ltd. 1mm MAP paper – Lorient Polyproducts Ltd. 1mm Pyrostrip 300 – Mann McGowan 1mm Therm-A-Strip – Intumescent Seals Ltd. 1mm SLS-PAD-109 – Halspan Ltd. 1mm SLS-PAD-110 – Halspan Ltd 1mm Graphite – Seal Tight Solutions Ltd
	With concealed intumescent (see section 9.2) under forend and keep of all locks/latches	1mm Lorient Interdens
	With unequal rebated edges (see section 5.4.3) and equal rebated edges (see section 5.4.1) under forend and keep of all locks/latches	1mm SLS-PAD-109 – Halspan Ltd.
Top pivots & flush bolts & Bottom straps	Lining all sides of the mortices	2mm Interdens – Dufaylite Developments Ltd. 2mm MAP paper – Lorient Polyproducts Ltd. 2mm Therm-A-Strip – Intumescent Seals Ltd. 2mm Therm-A-Flex – Intumescent Seals Ltd. 1mm SLS-PAD-111 – Halspan Ltd. 1mm SLS-PAD-121 – Halspan Ltd 1mm Graphite – Seal Tight Solutions Ltd 2mm Graphite –Kilargo Seals

Note:

The seal specification for each configuration is contained in sections 4.5.6 to 4.5.20.

While not essential, it is permitted to use 1mm thick MAP, Interdens or non-pressure forming graphite behind hinge blades and around lock bodies. Providing this additional protection will only enhance performance.

9.2 Concealed Intumescent Materials behind Lippings

Leaf 1 design has been successfully tested in test reference Chilt/RF00068A with intumescent material concealed in the rear of the vertical edge lippings. The permitted leaf sizes, configurations and intumescent specification are given in section 4.5.9 LSASD reference AH6 and section 4.5.10 ULSASD reference BH6.

The following construction details must also be followed:

1. The door must only be lipped on the vertical edges and glued using PVA type adhesive.
2. The lippings must be hardwood of minimum density 640kg/m^3.
3. The lippings must be flat and fall within the range of 8 – 12mm thick.
4. The door frame must be a minimum of 70mm (w) x 32mm (t) and constructed from hardwood of minimum density 640kg/m^3 – frame 2
5. 1mm thick intumescent gaskets must be fitted under all hinge blades, lock forends and keeps.

All other construction details may be as specified in this document, as appropriate.

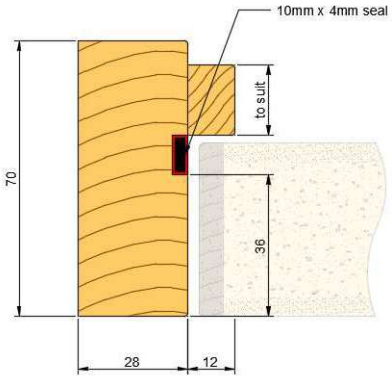
9.3 Offset Intumescent

Leaf 1 design has been successfully tested in test reference Chilt/RF02098A with offset intumescent.

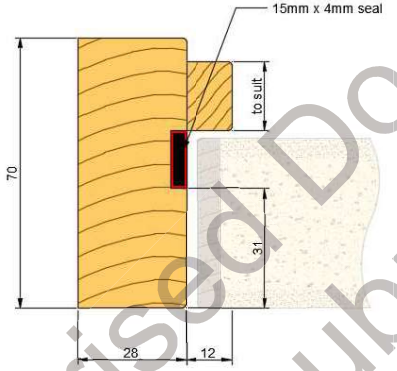
The test for this design was conducted with the doorset hung such that the door leaf opened towards the fire. If the tested design were to be tested opening away from the fire it would be expected that the presence of the stop to the fire side would protect the leaf edge from exposure to the fire and delay distortion until the stop had been burnt away and also that activation of the intumescent seal would occur at this delayed time. It is therefore assessed that for this offset intumescent design the more onerous test was conducted in terms of fire resistance performance. Based on this test, assessment is made that doorsets incorporating offset intumescent may be hung either away from or towards the fire risk side of the doorset.

The permitted leaf sizes, configurations and intumescent specification are given in section 4.5.9 LSASD reference AH3 and section 4.5.10 ULSASD reference BH3.

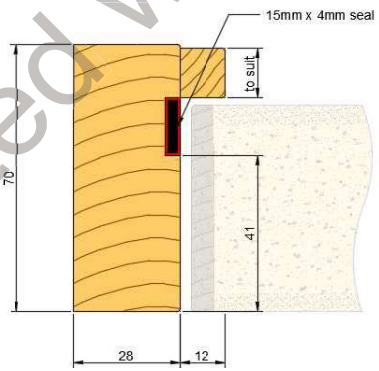
The following drawing shows the arrangement of the intumescent in Leaf 1 and Leaf 2.



(A): 10x4mm seal arrangement for 44mm door (Leaf 1)



(B): 15x4mm seal arrangement for 44mm door (Leaf 1)



(C): 15x4mm seal arrangement for 54mm door (Leaf 2)