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Title:

Supplementary Field of Application
For: Vistamatic VS2 Vision Panel,
in fire resisting timber based doorsets
30 minutes fire resistance performance.

Report No.:

Chilt/A12242 Revision B

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Prepared for:

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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.

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1 Foreword

This Supplementary Field of Application report has been commissioned by Vistamatic Ltd and relates to the Vistamatic VS2 vision panel system for 30 minutes fire resisting doorset installations. The report summarises the scope of application of the Vistamatic VS2 vision panel when used to glaze timber based fire resisting doorsets, and will be based on the associated test and assessment data.

The report is for National Application and has been written in accordance with the general principles outlined in BS EN 15725: 2010; *Extended application reports on the fire performance of construction products and building elements*.

This Supplementary Field of Application (scope) report uses established empirical methods of extrapolation and experience of fire testing similar doorset installations, in order to extend the scope of application by determining the limits for the designs based on the tested constructions and performances obtained. The scope is an evaluation of the potential fire resistance performance, if the variations specified herein were to be tested in accordance with BS 476-22: 1987.

This scope document cannot be used as supporting documentation for either a UKCA / CE marking application, nor can the conclusion be used to establish a formal classification against EN13501-2.

This Supplementary Field of Application has been written using appropriate test evidence generated at UKAS accredited laboratories, to the relevant test standard. The supporting test evidence has been deemed appropriate to support the manufacturer's multi-pane glazing unit design and is summarised in section 3.

The scope presented in this report relates to the behaviour of the Vistamatic VS2 multi-pane glazing unit design variation(s) under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the glazing unit installed within a doorset assembly in use.

This Supplementary Field of Application has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the Passive Fire Protection Forum (PFPF) *'Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence'*. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used for building control and other purposes.

Supporting documentation has been used to enhance the scope of application within this Supplementary Field of Application report. At the time of issue of this document, the relevant documentation has remaining validity. Where any supporting document is revalidated this Supplementary Field of Application may not continue to use the previous revision as suitable supporting data. This Supplementary Field of Application must be updated to introduce the newest iteration of the supporting document, during which update to the contents of the latest revision of the supporting document will be reviewed by Warringtonfire to ensure the scope herein remains unaltered by any changes to the supporting document. This Supplementary Field of Application will remain valid where door assemblies are manufactured based on other test and supporting data cited herein whilst the new revision of this Supplementary Field of Application is being prepared based on any revised supporting evidence. This Supplementary Field of Application will be issued with a new revision to reflect the update(s).

That is, were the Halspan Prima 30 Field of Application report cited in section 3.3.2 to be revalidated, it would not be permitted to produce doorsets under this Supplementary Field of Application until such time as the revised Halspan Prima 30 Field of Application is re-incorporated.

2 Proposal

It is proposed to consider the fire resistance performance of the specified proprietary Vistamatic VS2 vision panel system when fitted to timber based fire resisting doorsets and screens, for 30 minutes fire resistance integrity performance, if the doorset designs were to be tested to the requirements of BS 476-22: 1987, *Methods for determination of the fire resistance of non-loadbearing elements of construction.*

The Supplementary Field of Application defined in this report is based on the fire resistance test evidence for the Vistamatic VS2 vision panel system, which is summarised in section 3. Analysis of specific construction details that require assessment are given within this report against the relevant element of construction, as appropriate.

3 Test data

The test evidence summarised below has been generated to support the fire resistance performance of the Vistamatic VS2 vision panel that is the subject of this Supplementary Field of Application. The summary details are considered to be the key aspects of the design tested.

Some of the test evidence used in the evaluation is over 5 years old. In accordance with industry guidance, the evidence has been reviewed to consider its suitability. Warringtonfire are satisfied that there have been no significant revisions to the relevant test standards which would render the evidence irrelevant.

The evidence has been generated to BS 476 Part 22: 1987 and EN 1634-1. The EN standard is known to be more onerous than the BS standard, primarily due to the use of plate thermocouples within the furnace to record the furnace temperature.

The same time temperature curve is used to control the temperature within the furnace for both test methods (the heating curve given within ISO 834-1). However, the plate thermocouple used to record the temperature within the furnace for the EN test method, requires a higher thermal inertia to read the same temperature as the probe thermocouple that is used for the BS test, particularly during the early stages of the test. Furthermore, the neutral pressure regime is positioned lower relative to the specimen height in a EN fire door test, therefore resulting in greater relative positive pressure conditions than those expected in a BS test, which has the potential to increase hot gases and flaming on the unexposed side. These factors result in more onerous test conditions for doorsets tested to the EN 1634-1 test standard compared with the BS 476: Part 22: 1987 test standard, which has been demonstrated by testing the same products to both standards.

It is therefore the opinion of Warringtonfire that the evidence citied in the following section, tested to both named standards referenced above can be utilised in this assessment which will conclude in terms of the fire resistance performance of the VS2 vision panel assembly if tested in accordance with BS 476 Part 22:1987.

Note:

1. Dimensions are in mm unless otherwise stated.
2. Abbreviations: (h) = height; (w) = width; (t) = thickness; (d) = depth: (l) = length.
3. Latches fitted but disengaged for the test, are reported as ‘unlatched’.

3.1 Primary test evidence

3.1.1 Test report Chilt/RF12065 Revision B

The referenced test report, the essential details of which are summarised below, is primary data for the Vistamatic VS2 vision panel, fitted within 2No fire resisting timber based doorsets.

Date of test	10th July 2012	
Testing body	Chiltern International Fire, now trading as Warringtonfire Testing and Certification Ltd. UKAS No 1762	
Sponsor	Vistamatic Ltd	
Tested Product	2No Latched, single leaf, single acting, timber doorsets with 2No vision panels in each.	
Tested Orientation	Opening into the furnace	
Summary of test specimen (mm)	Both specimens Leaf: Leaf dimensions: 2100 (h) x 1140 (w) x 44 (t) Core: Halspan graduated density particleboard core 44 (t), incorporating 8 (t) Lipping: Sapele Lippings on vertical edges only. Frame: Frame: 70 (d) x 32 (w) European Redwood with a 25 (w) x 12 (t) stop. Both Specimens: Intumescent: 1No. 20 x 4 Lorient Polyproducts Ltd Type 617 centrally in the frame reveals to the head and jambs. Specimen A: Glazing Both vision panels utilised a Norseal acrylic mastic (Fire Wizard) as glazing liner nominally 3 (t) and Mann McGowan Pyroglaze 30 10x 3 (t) fitted between glass and timber beads. Both apertures included Pyro-EX toughened glass 10 (t) fitted to exposed face, 4 (t) annealed glass as a central pane with 6 (t) Pyro-Ex toughened glass fitted on unexposed face & a stainless steel spacer bar 5.5 (t) fitted between the outer glass layers. Left vision panel: sight size 485 (w) x 985 (h). Right panel size: 384 (w) x 1485 (h). Expansion allowance: 3 all round. Bead: Both panels utilised profiled 20 (h) x 17 (d) Sapele beads with 9 x 9 bolection returns and a 15O chamfer fitted to both faces. Bead fixing: fixed with 40 (l) steel pins fitted 50 from corners at 150 centres. Specimen B: Glazing Aperture liner: Both vision panels utilised a Norseal glazing liner 44 x 1.8 ref: 1.8-408 53/SA. Glazing system (between glass & bead): Norseal graphite ref: 2.5-390 x 10/SA fitted between glass and steel beads. Both apertures included Pyro-EX toughened glass 10 (t) fitted to exposed face, 4 (t) annealed glass as a central pane with 6 (t) Pyro-Ex toughened glass fitted on unexposed face & a stainless steel spacer bar 5.5 (t) fitted between the outer glass layers. Left vision panel: sight size 375 (w) x 1473 (h), right panel size: 476 (w) x 976 (h), expansion allowance 3 all round. Both panels utilised profiled 50 x 20 x 2 stainless steel beads fitted on the unexposed face & 50 x 2 stainless steel beading fitted around the glazing aperture on the exposed face. All were fixed with threaded studs welded to unexposed face bead and 40 (l) machine security screws fitted 20 from corners at 170 centres.	
Test Standard	BS EN 1634-1: 2008	
Performance	Doorset A	Doorset B
	Integrity: 30 minutes Insulation: 10 minutes- standard set & glass	Integrity: 34 minutes Insulation: 10 minutes - glass

3.1.2 Test report WF502390 Revision 1

The referenced test report, is primary data which supports the performance of the Vistamatic VS2 glazing unit in timber based doorsets.

Date of test	16th December 2021	
Testing body	Warringtonfire Testing and Certification Ltd. UKAS No 1762	
Sponsor	Vistamatic Limited	
Tested Product	2No Single-acting Single-leaf doorset incorporating the VS2 DGU. Referenced Doorset A and Doorset B for the purpose of the test.	
Sampling detail	BM TRADA Contract Reference SC21134	
Description of Specimen	Leaf core: Halspan Optima particleboard Leaf size: 2100mm high x 926mm wide x 44mm thick Glazing (Doorset A): Vistamatic VS2 with stainless steel glazing bead. 400mm high x 800mm wide x 22mm thick overall unit size. Glazing (Doorset B): Vistamatic VS2 with hardwood glazing bead. 1500mm high x 500mm wide x 26mm thick overall unit size. For full description of the tested doorsets reference must be made to the full test report.	
Tested Orientation	Doorset A & B: Opening away from the furnace	
Test Standard	BS EN 1634-1: 2014+A1:2018	
Performance	Integrity	Insulation
	Doorset A: 38 minutes Doorset B: 37 minutes	Doorset A: 18 minutes Doorset B: 21 minutes

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3.2 Supplementary test evidence

3.2.1 Test report IF12021

The referenced test report, the essential details of which are summarised below, is the supplementary data for the use of the Vistamatic VS2 vision panel, fitted within a small scale fire resisting timber based doorset.

Date of test	3rd April 2012
Testing body	Chiltern International Fire, now trading as Warringtonfire Testing and Certification Ltd. (UKAS No 1762)
Sponsor	Vistamatic Ltd
Tested Product	Latched, single leaf, single acting, timber doorsets with vision panel.
Tested Orientation	Opening into the furnace
Summary of test specimen (mm)	Leaf: Leaf dimensions: 1005 (h) x 928 (w) x 44 (t) Core: Halspan graduated density particleboard core 44 (t). Lipping: 6 (t) Sapele Lippings on vertical edges only. Frame: Frame: 70 (d) x 32 (w) European Redwood Door stop: 20 (w) x 12 (t) planted stop. Intumescent: Head & Jambs: 15 x 4 Lorient Polyproducts Ltd Type 617 centrally in the frame reveals. Hardware: Hinges: 2No Royde & Tucker H101 lift type hinges Closer: none fitted Latch: none fitted Glazing Glass 1 (outer – unexposed side): 6 (t) toughened glass Glass 2 (inner): 4 (t) annealed glass Glass 3 (outer – exposed side): 10 (t) toughened glass Aperture size: 406 (w) x 806 (h) Vision panel size: 400 (w) x 800 (h) Expansion allowance 3mm all round Beading: Sapele, 19 (h) x 17 (w) including 9x9 bolection return and 15 degrees chamfer. Bead fixing: 40 (l) steel pins, at 50mm from corners, 150mm centres and 45 degrees to the face of the glass. Glazing system (between glass & bead): 10x4 (t) Mann McGowan Pyroglaze 30 fitted between glass and bead. Glazing system (around perimeter of glass): 3 (t) Norseal intumescent mastic fitted around the perimeter of the glass
Test Standard	BS EN 1634-1: 2008
Performance	Integrity: 44 minutes Insulation: N/A

3.2.2 Test report Chilt/RF05102

The referenced test report, the essential details of which are summarised below, is primary data for the Pilkington Med-X (X-ray shielding) glass, fitted within a fire resisting timber based X-ray shielding doorset.

Date of Test	27th September 2005
Identification of Test Body	Chiltern International Fire, now trading as Warringtonfire Testing and Certification Ltd. UKAS No. 1762
Sponsor	Wardray Premise Ltd
Tested Product	Unlatched, Single Acting, Double Leaf, Timber Doorset with lead elements and glazing
Tested Orientation	Opening in towards heating condition
Summary of Test Specimen (mm)	Leaves: Overall Size: 2100(h) x 1000/500(w) x 60(t). Core: Pacific Rimwood Flamebreak 'FD30'– 44(t) overall. Outer facings: 6(t) Verola plywood (620kg/m^3). Lead sheet: (C8), 3.55(t) fitted between Flamebreak leaf and outer facings on exposed face, with a lead strip 38(w) x 3.55(t) fitted at the hanging leaf edges between the inner and outer facings. Lipping: Shorea (580-620 kg/m^3), 12(t) to vertical edges only. Astragal: Shorea (580-620 kg/m^3) 19(t) x 60(w) fitted to exposed face of the main leaf on a 3.55(t) lead strip. Frame: Head & Jambs: Shorea (580-620 kg/m^3), 100 (d) x 45(w), with 19 (t) x 35 (w) planted stop. Lead elements were incorporated. Frame Fixing: 3No 80(l) steel wood screws per jamb. Threshold: Non Combustible. Architrave: Shorea (580-620 kg/m^3) 60(w) x 12(t) with lead lining. Intumescent: Frame Reveals, heads & jambs: 2No Lorient Polyproducts LP1504 - 15 x 4. Leaf Edges (meeting edges only): 1No Lorient Polyproducts LP1504SS - 15 x 4 in active leaf only. Hardware: both specimens Hinges: 4No Royde & Tucker butt type hinges Ref.H1356 per jamb 130(h) x 44(w) (blade size). Closer: Arrow 517P overhead type closer (footprint size: 284(l) x 76(h)). Lock/Latch: Eurospec mortice (Forend size: 153(h) x 25(w)). Lock/Latch Status: Disengaged for test. Handle: Legge B397/77SCP lever type handle (Rose size: Ø54). Flushbolts: Eurospec aluminium (Forend size: 202(h) x 21(w)). Hardware protection: Under all hinge blades: 2(t) graphite sheet ref: Norseal HINP2 Under Forend & Keep and encasing latch body: Norseal graphite ref: Sheet 5 impregnated paper. Protecting flushbolt rebates and under keep: Norseal graphite ref: Sheet 5 impregnated paper Glazing Double glazed unit comprising: Glass 1: Pilkington Med-X (x-ray shielding glass) 11(t) on fire side. Glass 2: Pilkington Pyroshield 6(t) on the non-fire side. Beads: Shorea (580-620 kg/m^3) 23(w) x 25(d) with 36° chamfer and 5 x 5 bolection return. Steel screws 50(l) at 50 from corners and 150 (c/c). A steel angle fitted between the Pyroshield and glazing aperture and separating the two panes. Lead strip (C8) fitted behind bead on exposed face. Glazing system Lining the glazed aperture – Sealmaster GL60 2(t) liner with Fireglaze sealant 10(H) x 2(t) between the beads and glass.
Test Standard	BS 476 Part 22:1987

Performance	Integrity: 29 minutes (the test was terminated at 32 minutes) Insulation: 29 minutes
Failure Mode	Failure by way of continuous flaming at the top of the meeting edges at 29 minutes 50 seconds.
Reason For Use	The failure recorded at 29 minutes was not related to the glazing which is the item of interest from this test evidence. No failure was reported at the glazing throughout the duration of the test which was terminated at 32 minutes. This test evidence is therefore considered acceptable for use in the support of fire resistance performance of the Med-X glazing

3.3 Field of Application reports

Below are summaries of the Field of Application reports for the proprietary doorsets assessed for use with the Vistamatic VS2 vision panel.

3.3.1 Field of Application report Chilt/A02066 Revision O – Strebord 44

The referenced field of application, contains the test evidence used to support the fire resistance of the Strebord 44 doorset design. Construction of these proprietary fire resisting doorsets must be in accordance with the requirements of the field of application report, other than as specified for the Vistamatic VS2 vision panel detailed within this report.

Validity period	From:	1st October 2021
	To:	1st October 2026
Identification of assessing body:	Warringtonfire Testing & Certification Ltd	
Assessment Sponsor:	Falcon Panel Products Ltd	
Summary of assessment:	Graduated density particleboard core doorsets for 30 minute fire resisting applications. The assessment extends the scope of application of the tested design based on a series of full scale fire resisting tests and covers: • Permitted configurations • Maximum leaf sizes • Intumescent specifications • Frame • Hardware	
Test Standard:	BS 476: Part 22: 1987	

3.3.2 Field of Application report FEA/F97174 Part 1 Revision J – Prima 30

The referenced field of application, contains the test evidence used to support the fire resistance of the Prima 30 doorset design with timber frames. Construction of these proprietary fire resisting doorsets must be in accordance with the requirements of the field of application report, other than as specified for the Vistamatic VS2 vision panel detailed within this report.

Validity period	From:	11th April 2022
	To:	18th March 2027
Identification of assessing body:	Warringtonfire Testing & Certification Ltd	
Assessment Sponsor:	Halspan Ltd	
Summary of assessment:	Solid particleboard core doorsets for 30 minute fire resisting applications. The assessment extends the scope of application of the tested design based on a series of full scale fire resisting tests and covers: • Permitted configurations • Maximum leaf sizes • Intumescent specifications • Frame • Hardware	
Test Standard:	BS 476: Part 22: 1987	

3.3.3 Field of Application report FEA/F97174 Part 2 Revision J – Prima 30

The referenced field of application, contains the test evidence used to support the fire resistance of the Prima 30 doorset design with metal frames. Construction of these proprietary fire resisting doorsets must be in accordance with the requirements of the field of application report, other than as specified for the Vistamatic VS2 vision panel detailed within this report.

Validity period	From:	19th October 2022
	To:	18th October 2027
Identification of assessing body:	Warringtonfire Testing & Certification Ltd	
Assessment Sponsor:	Halspan Ltd	
Summary of assessment:	Solid particleboard core doorsets for 30 minute fire resisting applications. The assessment extends the scope of application of the tested design based on a series of full scale fire resisting tests and covers: • Permitted configurations • Maximum leaf sizes • Intumescent specifications • Frame • Hardware	
Test Standard:	BS 476: Part 22: 1987	

3.3.4 Field of Application report FEA/F98164 Revision O – Flamebreak 30

The referenced field of application, contains the test evidence used to support the fire resistance of the Flamebreak 30 doorset design. Construction of these proprietary fire resisting doorsets must be in accordance with the requirements of the field of application report, other than as specified for the Vistamatic VS2 vision panel detailed within this report.

Validity period	From:	2nd August 2021
	To:	22nd December 2025
Identification of assessing body:	Warringtonfire Testing & Certification Ltd	
Assessment Sponsor:	Pacific Rim Wood Ltd	
Summary of assessment:	Lamella core doorsets for 30 minute fire resisting applications. The assessment extends the scope of application of the tested design based on a series of full scale fire resisting tests and covers: • Permitted configurations • Maximum leaf sizes • Intumescent specifications • Frame • Hardware	
Test Standard:	BS 476: Part 22: 1987	

3.3.5 Field of Application report Chilt/A13085 Revision D – Decor 44

The referenced field of application, contains the test evidence used to support the fire resistance of the Décor 44 doorset design. Construction of these proprietary fire resisting doorsets must be in accordance with the requirements of the field of application report, other than as specified for the Vistamatic VS2 vision panel detailed within this report.

Validity period	From:	27th June 2019
	To:	30th October 2023
Identification of assessing body:	Warringtonfire Testing & Certification Ltd	
Assessment Sponsor:	Egger (UK) Ltd	
Summary of assessment:	Graduated density particleboard core doorsets for 30 minute fire resisting applications. The assessment extends the scope of application of the tested design based on a series of full scale fire resisting tests and covers: • Permitted configurations • Maximum leaf sizes • Intumescent specifications • Frame • Hardware	
Test Standard:	BS 476: Part 22: 1987	

4 Description of the Vistamatic VS2 vision panel

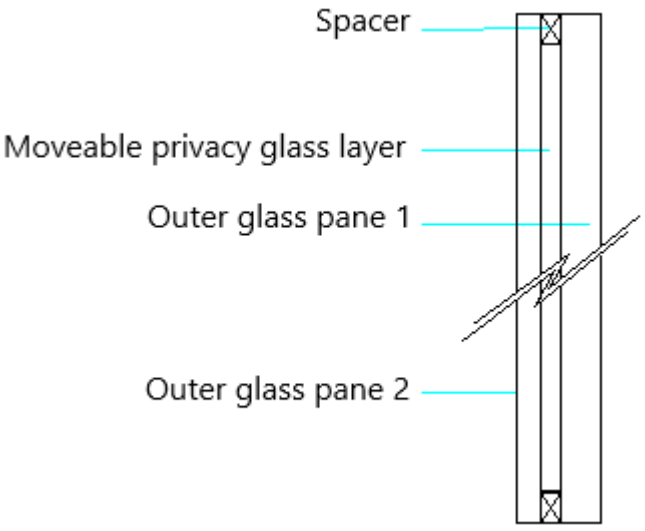
The tested Vistamatic VS2 vision panel comprises of two outer panes of toughened glass, a stainless steel spacer between the two panes and a moveable middle layer of annealed glass for privacy.

The table below gives a summary of the tested VS2 glazing panel assembly.

Element	Specification	Location
Outer glass pane 1	6-10mm thick Pyro-EX toughened glass – from Express Toughening	Fitted on the fire side or non-fire side
Outer glass pane 2	6-10mm thick Pyro-EX toughened glass – from Express Toughening	Fitted on the fire side or non-fire side
Middle glass layer (moveable)	4mm thick annealed glass – from Express Toughening	Fitted between the outer glass layers (see note below)
Stainless steel spacer bar – DGS (Product ref: SS/BT05.5)	5.5mm wide	Fitted between the outer glass layers
Operating lever	80mm long, Double lever, chrome plated zinc alloy	Fitted in the mid width of panel, 43mm up from the base.
Seal/Adhesive	Glass layers and spacer are sealed together as a single unit using Bostik hotmelt adhesive	-

Note: Moveable middle layer of glass may be fitted at full height of the vision panel or fitted at the top half of the vision panel only, whilst the bottom half remains fixed.

The following figure shows the essential elements of the double glazed unit.



Example cross section of the Vistamatic VS2 vision panel double glazed unit
Note that operating lever and middle glass layer is not shown in the above drawing

The vision panel is retained within the door leaf with either timber or steel beads, which must meet the specifications detailed in the following sections.

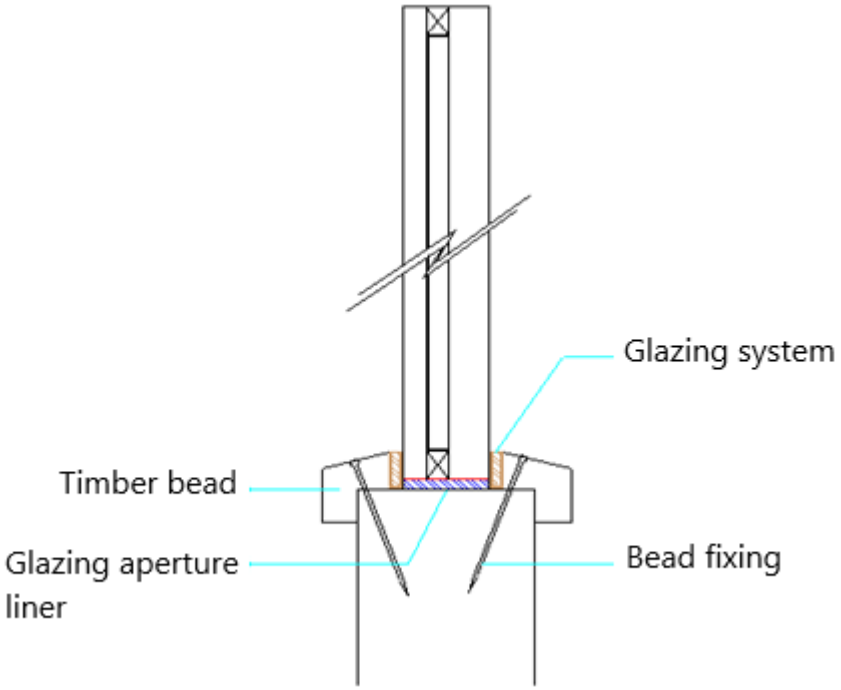
4.1 Vistamatic VS2 vision panel – with timber beads

Based on the test evidence Chilt/RF12065 Revision B (Doorset A) and WF502390 Revision 1 summarised in section 3, the specifications for the VS2 vision panel assembly with timber beads detailed in the following table must be complied with.

Element	Specification	Location
Bead material	Hardwood timber (with minimum density of 640kg/m^3) Timber for glazing beads must be straight grained joinery quality hardwood, free from knots, splits and checks.	-
Bead size	A minimum of 20mm high x 17mm wide including a 9mm x 9mm bolection return. Bead to be chamfered 15^o.	-
Bead fixings	40mm long no. 6-8 steel screws or 40mm long x 1.8mm diameter steel pins. Fixings must locate into the door core to a depth of approximately 20 – 25mm.	Located at minimum 150mm centres and 50mm from each corner. Fixings must be inserted at 35-40^o to the vertical and located to 'cradle' the vision panel.
Glazing system	10mm high x 3mm thick Pyroglaze 30 – by Mann McGowan Ltd	Fitted between the glass and bead on both faces.
Glazing aperture liner	Nominally 3mm thick and width of the unit, Fire Wizard intumescent mastic – by Norseal Ltd	Fitted lining the glazing aperture between the Pyroglaze 30 glazing system.
Intumescent around centre glass actuator spindle	5mm thick overall – 2No graphite intumescent, Product ref: 2.5-390 x 10/SA – by Norseal Ltd	Fitted around the spindle lining the aperture in the outer glass layers
Expansion allowance	3-4mm all around the edges of the glazing unit, using non-combustible or hardwood setting blocks at the bottom edge.	-
Maximum VS2 unit dimensions	Height: 1800mm Width: 600mm Area: 0.93m^2	-

Note: Maximum VS2 unit dimensions given in the table above is based on test evidence WF502390 Revision 1

The figure below shows an example drawing of the tested VS2 vision panel assembly with timber beads.



Example cross section of the Vistamatic VS2 vision panel installed with timber beads

4.2 Vistamatic VS2 vision panel – with steel beads

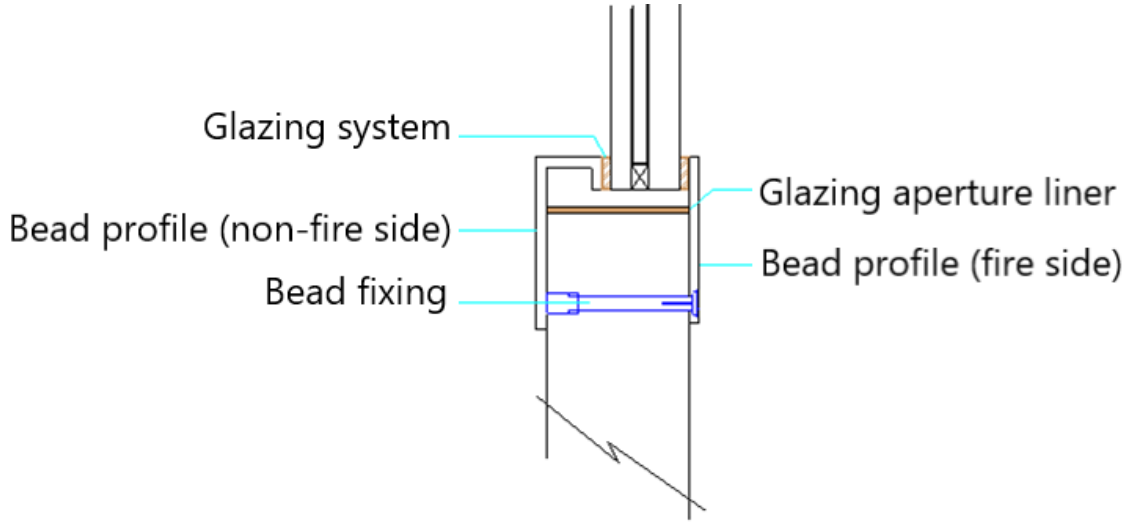
Based on the test evidence Chilt/RF12065 Revision B (Doorset B) and WF502390 Revision 1 summarised in section 3, the specifications for the VS2 vision panel assembly with steel beads detailed in the following table must be complied with.

Element		Specification	Location
Bead material		2mm thick stainless steel profile	-
Bead Profile	Exposed Face	50mm high x 2mm thick	Fitted around the glazing aperture on the exposed face
	Unexposed Face	50mm high x 20 mm wide x 2mm thick	Fitted on the unexposed face
Bead fixings		M5 x 40mm long machine steel screws fixed from the exposed face to the threaded studs on the unexposed face	Fitted at minimum 20mm from corners and 170mm centres.
		M5 x 12mm long threaded studs	Welded to the unexposed face bead
Glazing system		10mm high x 2.5mm thick raw graphite, Product ref: 2.5-390 x 10/SA – by Norseal Ltd	Fitted between the glass and beads on both faces
Glazing aperture liner		1.8mm thick x 44mm graphite intumescent liner, Product ref: 1.8-408 x 53/SA – by Norseal Ltd	Fitted lining the glazing aperture
Intumescent around centre glass actuator spindle		5mm thick overall – 2No graphite intumescent, Product ref: 2.5-390 x 10/SA – by Norseal Ltd	Fitted around the spindle lining the aperture in the outer glass layers

Expansion allowance	4mm all around the edges of the glazing unit, using non-combustible or hardwood setting blocks at the bottom edge.	-
Maximum VS2 unit dimensions	Height: 1800mm Width: 600mm Area: 0.75m^2	-

Note: Maximum VS2 unit dimensions given in the table above is based on test evidence Chilt/RF12065 Revision B (Doorset B)

The figure below shows an example drawing of the tested VS2 vision panel assembly with steel beads.



Example cross section of the Vistamatic VS2 vision panel installed with steel beads

4.3 Vistamatic VS2 vision panel with Med-X glass – with timber beads only

For applications requiring an x-ray shielding functionality, the Pilkington Med-X glass which has been successfully tested in test reference Chilt/RF05102, proven for 30 minutes integrity performance when used in a multi-pane glazing unit, fitted within a fire resisting timber based door leaf.

It is therefore considered acceptable for the Pilkington Med-X glass to be used as an alternative glass type on the either fire or non-fire side of the Vistamatic VS2 vision panel.

The following table summarises the permitted specification for the alternative glass type:

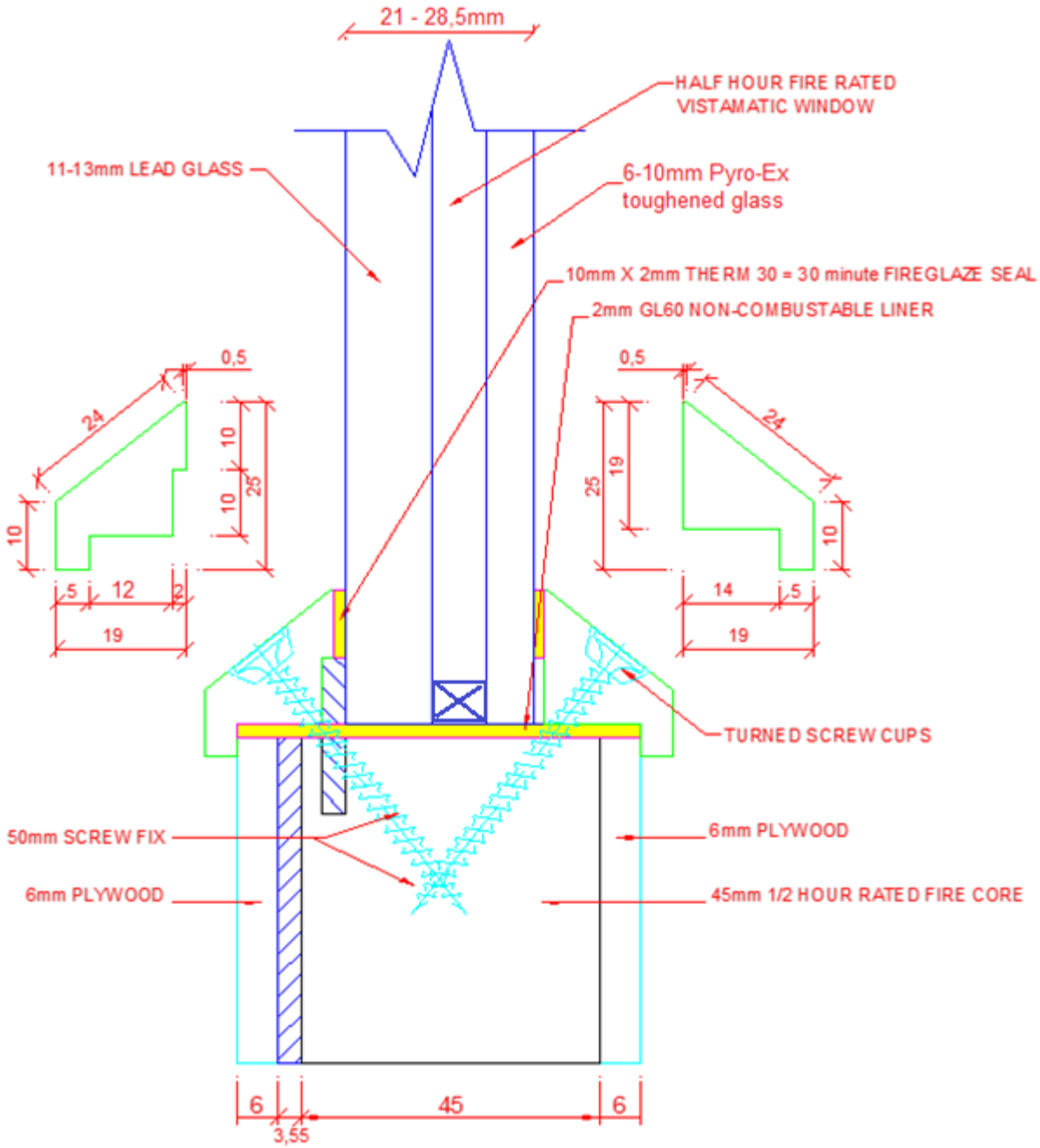
Glass Reference	Manufacturer / Supplier	Size (mm)
Pilkington Med-X (X-ray shielding glass type RWB46)	Pilkington	11 – 13 thick

The following requirements must be complied with when using the Pilkington Med-X glass:

Element	Specification	Location
Bead material	Hardwood timber (with minimum density of 640kg/m^3)	-
Bead size	A minimum of 25mm high x 19mm wide (when using a 13mm thick Med-X glass), including a 5mm x 5mm bolection return. Bead to be chamfered 36°. The bead retaining the Med-X glass includes a 2mm deep rebate to accept the lead. (see figure below)	-
Bead fixings	50mm long no. 6-8 steel screws (see figure below)	Located at minimum 150mm centres and 50mm from each corner. Fixings must be inserted at 30° to the vertical and located to 'cradle' the vision panel.
Glazing system	10mm high x 2mm thick Fireglaze seal. (See figure below).	Fitted between the glass and bead on both faces.
Glazing aperture liner	Sealmaster GL60 2mm thick liner. (See figure below).	Fitted lining the glazing aperture between the Pyroglaze 30 glazing system.
Intumescent around centre glass actuator spindle	5mm thick overall – 2No graphite intumescent, Product ref: 2.5-390 x 10/SA – by Norseal Ltd	Fitted around the spindle lining the aperture in the outer glass layers
Expansion allowance	2-3mm all around the edges of the glazing unit	-
Maximum VS2 unit dimensions	Height: 963mm Width: 963mm Area: 0.8m^2	-
Operating lever	Must be fitted through the Pyro-Ex glass only. (See note)	-

Note: The spindle and turn handle require a hole to be drilled through the glass in order to connect to the lever which operates the central annealed glass, and this has not been tested on the Med-X glass. Therefore the spindle and turn handle cannot be fitted through the Med-X glass.

The figure below shows a vertical section of the Vistamatic VS2 vision panel incorporating the alternative Pilkington Med-X glass.



Example cross section of the required glazing installation for the Vistamatic VS2 vision panel when using the Med-X X-ray shielding glass specified above.

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5 Scope of application for Vistamatic VS2 vision panel

Based on the test evidence for the Vistamatic VS2 vision panel summarised in section 3, it is permissible for use within the scope detailed in the following sections without detracting from the fire resistance performance of the particular system.

5.1 Permitted proprietary fire resisting doors

The Vistamatic VS2 vision panel may installed within the following tested and proven proprietary fire resisting doorset designs summarised in the table below.

This report will only consider the aperture size relevant to each doorset design for use with the Vistamatic VS2 vision panel. For all other details, the full construction requirements in the assessment documentation relevant to the chosen doorset must be referred to.

Manufacturer	Product	Integrity Rating (minutes)	General Description
Falcon Panel Products Ltd	Strebord 44	30	Graduated density particle board
Halspan	30 Prima	30	Tri layer particle board
Pacific Rim Wood Ltd	Flamebreak 30	30	Lamel 3-layer core door with various facing coverings
Egger (UK) Ltd	Eurospan	30	Graduated density chipboard

All of the above designs have been tested and proven to BS 476-22 and/or BS EN 1634-1.

5.2 The use of the Vistamatic VS2 vision panel in proprietary fire resisting doors

When using the VS2 vision panel on any of the permitted proprietary fire resisting doorsets referenced in section 3.3 and 5.1 above, the following must be adhered to:

1. The maximum dimensions for the VS2 vision panel specified in the tables in section 4.1 – 4.3, must not exceed the maximum glazing dimensions for the proprietary doorset as specified in the supporting Field of Application report.
2. Other than the specification of the VS2 vision panel given in section 4, all other installation requirement (e.g., distance from leaf edges, multiple glazed apertures, proximity to other elements of door construction, etc) must be in accordance with the specification given in the supporting Field of Application report for the proprietary doorset being used.

6 Conclusion

If the Vistamatic VS2 vision panels were to be used for glazing within fire resisting timber doors, in accordance with the specifications documented within this supplementary field of application report, and were to be tested in the appropriate configuration in accordance with BS 476 Part 22:1987, it is the opinion of Warringtonfire that the glazing installation would achieve a minimum of 30 minutes fire resistance integrity.

7 Declaration by the Applicant

1) We the undersigned confirm that we have read and comply with obligations placed on us by the Passive Fire Protection Forum (PFPF) Guide to undertaking technical assessments and engineering evaluations based on fire test evidence 2021 Industry Standard Procedure.

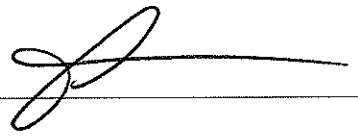
2) We confirm that any changes to a component or element of structure which are the subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.

3) We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.

4) We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.

5) We are not aware of any information that could affect the conclusions of this assessment. If we subsequently become aware of any such information, we agree to ask the assessing authority to withdraw the assessment.

(in accordance with the principles of FTSG Resolution No. 82: 2001).

Signed: 

Name: MARK NASH

Position: DIRECTOR

Date: 14/4/23

For and on behalf of: **Vistamatic Ltd**

8 Limitations

The following limitations apply to this assessment:

1) This supplementary field of application addresses itself solely to the elements and subjects discussed and do not cover any other criteria. All other details not specifically referred to should remain as tested or assessed.

2) This supplementary field of application report is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Warringtonfire, the assessment will be unconditionally withdrawn, and the applicant will be notified in writing. Similarly, the assessment evaluation is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.

3) This supplementary field of application has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.

4) Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.

5) This supplementary field of application relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions. It does not purport to be a complete specification ensuring fitness for purpose and long-term serviceability. It is the responsibility of the client to ensure that the element conforms to recognised good practice in all other respects and that, with the incorporation of the guidance given in this field of application, the element is suitable for its intended purpose.

6) This supplementary field of application report represents our opinion as to the performance likely to be demonstrated on a test in accordance with BS 476: Part 22: 1987, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this field of application would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

7) This report may only be reproduced in full. Extracts or abridgements of reports shall not be published without permission of Warringtonfire. All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at https://www.element.com/terms/terms-and-conditions or upon request.

8) The version/revision stated on the front of this supplementary 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.

9 Validity

1) This supplementary field of application is initially valid for five years after which time it must be submitted to Warringtonfire for re-appraisal and revalidation.

2) This report is not valid unless it incorporates the declaration given in Section 7 duly signed by the applicant.

Signature:			
Name:	**Bob Freeman***	**Andrew Winning***	**Nikolas Whitelock***
Title:	Product Assessor	Senior Product Assessor	Senior Product Assessor

* For and on behalf of Warringtonfire

10 Appendix A – Revisions

Rev.	Job Ref	Date	Description
A	404612	20.09.2018	Technical review and update, revalidation for a further 5 years, and update to Exova Warringtonfire format.
B	504149	14.04.2023	Technical review of report. Summary of change: (1). Addition of alternative glass type (Pilkington Med-X glazing) (2). Removal of scope for fanlight, sidelight, non-proprietary fire doors, and amended size of glazing unit based on the Warringtonfire's current rule of assessment. (3). Rebranding of report to the new Warringtonfire styling and layout.

--- END OF REPORT ---