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Title

Supplementary Field of Application for:

The Borg Locks (UK) Ltd. Range of Key Pad and Latch Designs Installed into a Range of Timber Blanks in Timber Based Door Frames

For 30 & 60 Minutes Fire Resistance

Report No.:

BMT/CNA/F16009 Rev A

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1 Foreword

This Supplementary Field of Application report has been commissioned by Borg Locks (UK) Ltd. and relates to the fire resistance performance of a range of key pad and latch designs when installed into a range of proven 30 and 60 minute fire resisting timber doorset designs.

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) uses established empirical methods of extrapolation and experience of fire testing similar items of hardware installed into timber doorsets, 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 Part 22: 1987.

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

This 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 manufacturers hardware installed into the stated timber based door designs and is summarised in section 3.

The scope presented in this report relates to the behaviour of the proposed door designs installed with the stated hardware variations under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the door 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.

Valid field of application supporting documentation has been used to cover the range of doorset designs within the scope of application of this report. It is the responsibility of users to check that the cited versions of such supporting documentation remain valid at the time of use. Where new revisions or revalidations of supporting documentation have been issued they must be checked against those referenced in this report and, if their scope has changed, Warringtonfire must be consulted to review and consider the effect of these changes on the scope and conclusions of this report.

2 Proposal

It is proposed to consider the fire resistance performance of Borg Locks (UK) Ltd. key pad and latch designs when installed into a range of proven timber doorset designs listed below, for 30 and 60 minutes fire resistance integrity performance (and where appropriate insulation performance), if the doorset designs were to be tested to the requirements of BS 476: Part 22: 1987, *Fire tests on building materials and structures – Part 22: Method for determination of the fire resistance of non-load bearing elements of construction.*

This supplementary FoA establishes the limits with respect to locksets and key pads, the required intumescent protection and door leaf type, whilst maintaining the designated level of fire resistance performance.

The following items of hardware are permitted in this assessment.

- BL2501 (key pad handle lockset).*
- BL2401 (key pad handle lockset).*
- BL2701 (key pad handle lockset).*
- S709 anti-tamper mortice latch.*

*The above locks are covered with the following latch backset sizes: 28mm, 50mm, 60mm & 70mm.

The following doorset designs permitted in this assessment.

- Strebord 44 - Falcon Panel Products Ltd.
- Strebord 54 - Falcon Panel Products Ltd.
- Prima 30 – Halspan Ltd.
- Prima 60 – Halspan Ltd.
- Flamebreak 30 – Pacific Rim Wood UK Ltd.
- Flamebreak 60 – Pacific Rim Wood UK Ltd.
- Blankfort 60/60+ - Blankfort Inc.
- Egger Decor 30 – Egger (UK) Ltd.
- Egger Eurospan 60 – Egger (UK) Ltd.
- Laminesse FireSafe & FireSmoke 44/54mm - Moralt AG.
- Laminesse FireSafe & FireSmoke 54mm - Moralt AG.

The Supplementary field of application defined in this report is based on the fire resistance test evidence for the items of hardware and doorset designs, 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.

This supplementary field of application only provides information relevant to the Borg Locks (UK) Ltd. key pad and latch designs and how they may be used as an option to similar products currently listed within the proprietary manufacturers' primary FOA report for the doorset designs. All other construction details and design limitations must be in compliance with the primary FOA report for the specified doorset design, as appropriate.

In order to construct a doorset design using the Borg Locks (UK) Ltd. key pad and latch designs as detailed herein, this supplementary field of application must be used in conjunction with one of the manufacturers current and valid primary FOA reports cited in section 3, as appropriate. This field of application cannot be used to support the fire resistance of a doorset design by itself.

3 Test Data

The test evidence summarised below has been generated to support the fire resistance performance of the locks and latches installed into door designs that are the subject of this field of application. The summary details are considered to be the key aspects of the design tested.

Note:

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

All 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 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 476: Part 22: 1987 test, particularly during the early stages of the test. Furthermore, the neutral pressure regime is positioned lower relative to the specimen height in a European fire door test, therefore resulting in greater relative positive pressure conditions than those expected in a BS 476-22: 1987 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 BS 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 complete doorset fitted with Borg Locks Ltd products designs as specified herein, if tested in accordance with BS 476: Part 22: 1987.

3.1 Primary Test Evidence

3.1.1 Test Report ChiltRF13246 Doorset A

The referenced test report, the essential details of which are summarised below, is the primary data for a BL2501 keypad handle lockset installed into a Strebord 54 doorset for 60 minutes fire resisting application.

Date of Test:	20th November 2013
Identification of Test Body:	Warringtonfire Testing and Certification Ltd. Previously known as Chiltern International Fire Ltd. UKAS No. 1762
Sponsor:	Borg Locks Ltd.
Tested Product:	Latched, Single Acting, Single Leaf, Joinery Timber Doorset – LSASD.
Tested Orientation:	Opening in towards heating condition
Summary of Test Specimen:	LEAF: Overall Size: e.g. 2135 (h) x 928 (w) x 54 (t). Core: Particleboard (540-635kg/m³), 54 (t). Lipping: Sapele (746kg/m³), 6 (t) fitted to vertical edges only. FRAME: Head & Jambs: Sapele (746kg/m³), 90 (d) x 32 (t) with 20 (w) x 12 (t) planted stop. Frame Fixing: 4No 80 (l) steel screws per jamb. Architrave: MDF (700kg/m³), 18 (t) x 45 (w). INTUMESCENT: Frame Head & Jambs Reveal: 2No 15 (w) x 4 (t) Pyroplex FO8700 fitted centrally 10 apart. HARDWARE: Hinges: 3No Royde & Tucker H101 lift off hinge per jamb, 101 (h) x 32 (w) x 3 (t). Closer: 1No Rutland TS3204 closer, 220 (w) x 59 (h). Lock/Latch No1: Borg Locks stainless steel keypad handle 7001 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1635 from the threshold / disengaged. Lock/Latch No2: Borg Locks satin chrome keypad handle 6000 with brass mortice latch S509, 225 (h) x 22 (w) x 3 (latch forend), 160 (h), 85 (d) x 14 (w) (latch body), 60 backset & 180 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1345 from the threshold / disengaged. Lock/Latch No3: Borg Locks satin stainless steel keypad handle 5401 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1000 from the threshold / engaged. Lock/Latch No4: Borg Locks super stainless steel keypad handle 2501 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 775 from the threshold / disengaged. HARDWARE PROTECTION: Under Hinges: 2 (t) Interdens. Under Latch & Keep Forend & Encasing Latch Body: 1 (t) Interdens.
Test Standard:	BS EN 1634-1:2008
Performance:	**Integrity:** 66 minutes. **Insulation:** 65 minutes.

3.1.2 Test Report ChiltRF13246 Doorset B

The referenced test report, the essential details of which are summarised below, is the primary data for a BL2501 keypad handle lockset installed into a Strebord 44 doorset for 30 minutes fire resisting application.

Date of Test:	20th November 2013
Identification of Test Body:	Warringtonfire Testing and Certification Ltd. Previously known as Chiltern International Fire Ltd. UKAS No. 1762
Sponsor:	Borg Locks Ltd.
Tested Product:	Latched, Single Acting, Single Leaf, Joinery Timber Doorset – LSASD.
Tested Orientation:	Opening in towards heating condition
Summary of Test Specimen:	LEAF: Overall Size: e.g. 2135 (h) x 928 (w) x 44 (t). Core: Particleboard (520-630kg/m³), 44 (t). Lipping: Sapele (746kg/m³), 6 (t) fitted to vertical edges only. FRAME: Head & Jambs: European Redwood (578kg/m³), 90 (d) x 32 (t) with 20 (w) x 12 (t) planted stop. Frame Fixing: 4No 80 (l) steel screws per jamb. Architrave: MDF (700kg/m³), 18 (t) x 45 (w). INTUMESCENT: Frame Head & Jambs Reveal: 1No 15 (w) x 4 (t) Pyroplex FO8700 fitted centrally. HARDWARE: Hinges: 3No Royde & Tucker H101 lift off hinge per jamb, 101 (h) x 32 (w) x 3 (t). Closer: 1No Rutland TS3204 closer, 220 (w) x 59 (h). Lock/Latch No1: Borg Locks stainless steel keypad handle 7001 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1635 from the threshold / disengaged. Lock/Latch No2: Borg Locks satin chrome keypad handle 6000 with brass mortice latch S509, 225 (h) x 22 (w) x 3 (latch forend), 160 (h), 85 (d) x 14 (w) (latch body), 60 backset & 180 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1345 from the threshold / disengaged. Lock/Latch No3: Borg Locks satin stainless steel keypad handle 5401 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 1000 from the threshold / engaged. Lock/Latch No4: Borg Locks super stainless steel keypad handle 2501 with tubular steel mortice latch, 58 (h) x 30 (w) x 3 (latch forend), 60 backset & 70 (h) x 28 (w) x 1 (t) (keep forend). Fitted in the closing edge 775 from the threshold / disengaged. HARDWARE PROTECTION: Under Hinges: 1 (t) Interdens. Under Latch & Keep Forend & Encasing Latch Body: 1 (t) Interdens.
Test Standard:	BS EN 1634-1:2008
Performance:	**Integrity:** 41 minutes. **Insulation:** 39 minutes.

3.2 Doorset Assessments

3.2.1 Field of Application – Strebord 44 Doorsets – Chilt/A02066 Revision N

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Strebord 44 proprietary door design covered by the field of application report.

Validity:	From: 1st July 2021 to 1st October 2021.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Falcon Panel Products
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 44mm graduated density particleboard core (density held on file by Warringtonfire). All leaf edges are lipped with 6-19 (t) hardwood of minimum density 530kg/m^3. The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 1.90m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Strebord 44 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.2 Field of Application – Halspan Prima 30 Doorsets - FEA/F97174 Rev I Part 1

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Halspan Prima 30 proprietary door design covered by the field of application report.

Validity:	From: 17th December 2015 to 1st August 2021
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Halspan Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 3 layered particleboard of nominal density 630kg/m^3 +/- 10%. Only the vertical edges must be lipped but where required all edges may be lipped. Leaf edges are lipped with 6-18 (t) hardwood of nominal density 640kg/m^3. The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 1.75m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Halspan **Prima** 30 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.3 Field of Application – Egger Decor 30 Doorsets – Chilt/A13085 Revision E

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Egger Decor 30 proprietary door leaf design covered by this field of application report.

Validity:	From: 25th August 2017 to 25th August 2022.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Egger (UK) Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 44 (t) Egger Décor 300 particleboard Only the vertical edges must be lipped but where required all edges may be lipped with 6-13 (t) hardwood of nominal density 640kg/m^3 The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.85m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Egger Décor 30 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.4 Field of Application Report - Flamebreak 30 Doorsets - FEA/F98164 Revision M

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Flamebreak 30 proprietary door design covered by this field of application report.

Validity:	From: 7th February 2020 to 7th February 2025.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Pacific Rim Wood Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 3 layer tropical hardwood lamel core framed with mixed tropical hardwood stiles and rails, and faced on each side with 4 (t) plywood or MDF. All leaf edges are lipped with 10-15 (t) hardwood of nominal density 640kg/m^3. The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.72m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Flamebreak 30 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.5 Field of Application Report – Moralt Laminesse Firesmoke & Firesafe 44/54 – Chilt/A13058 Revision D

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Laminesse Firesmoke & Firesafe 44/54 proprietary door design covered by this field of application report.

Validity:	From: 11th December 2019 to 11th December 2024.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Moralt AG
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise Spruce/Fir/Pine core and faced on each side with 6 (t) MDF, Chipboard or 4 (t) Ply veneer facings. All leaf edges are lipped with 6-14 (t) hardwood of nominal density 640kg/m^3. The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.72m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Laminesse Firesmoke & Firesafe 44/54 designs includes the use of a range of hardware including hinges, pivots, concealed and overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.6 Field of Application – Strebord 54 Doorsets – Chilt/A02067 Revision J

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Strebord 54 proprietary door design covered by the field of application report.

Validity:	From: 1st July 2021 to 1st July 2022
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Falcon Panel Products
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 54mm graduated density particleboard core (density held on file by Warringtonfire). All leaf edges are lipped with 10-15 (t) hardwood of nominal density 640kg/m^3, (excluding Beech, *Fagus sylvatica* and related species). The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 1.50m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Strebord 54 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.7 Field of Application – Halspan Prima 60 Doorsets - FEA/F96103 Revision N

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Halspan Prima 60 proprietary door design covered by the field of application report.

Validity:	From: 12th September 2018 to 8th August 2022.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Halspan Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 3 layered particleboard of nominal density 630kg/m^3 +/- 10%. Only the vertical edges must be lipped but where required all edges may be lipped. Leaf edges are lipped with 6-18 (t) hardwood of nominal density 640kg/m^3 (excluding Beech, *Fagus sylvatica* and related species). The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.82m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Halspan **Prima** 60 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.8 Field of Application – Egger Eurospan 60 Doorsets – Chilt/A10187 Revision D

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Egger Eurospan 60 proprietary door design covered by the field of application report.

Validity:	From: 25th August 2017 to 25th August 2022.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Egger (UK) Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 38 (t) Egger Eurospan FD60 particleboard with 8 (t) particleboard facings. Only the vertical edges must be lipped but where required all edges may be lipped with 8-13 (t) hardwood of nominal density 640kg/m^3 (excluding Beech, *Fagus sylvatica* and related species). The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.85m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Egger Eurospan 60 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.9 Field of Application Report - Flamebreak 60 Doorsets - FEA/F02141 Revision K

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Flamebreak 60 proprietary door design covered by this field of application report.

Validity:	From: 7th February 2020 to 7th February 2025.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Pacific Rim Wood Ltd
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise 3 layer tropical hardwood lamel core framed with mixed tropical hardwood stiles and rails, and faced on each side with 6 (t) plywood or MDF. All leaf edges are lipped with 10-15 (t) hardwood of nominal density 640kg/m^3 (excluding Beech, *Fagus sylvatica* and related species). The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.72m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Flamebreak 60 design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

3.2.10 FEA/F12152 Revision E– Blankfort 60/60+Doorsets - Field of Application

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Blankfort 60/60+ proprietary door design covered by this field of application report.

Validity:	From: 12th November 2017 to 12th November 2022.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Blankfort Inc, now trading as Serfina
Product:	Latched and unlatched, single and double acting, single and double leaf, timber based, flush doorsets with flush overpanels.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise softwood lamel core framed with lamel top and bottom rails, and faced on each side with 9 (t) chipboard and 3 (t) MDF. All leaf edges are lipped with minimum 6 (t) hardwood of nominal density 640kg/m^3 (excluding Beech, *Fagus sylvatica* and related species). The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.72m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Blankfort 60/60+ design includes the use of a range of hardware including hinges, pivots, overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed or flush solid overpanels, fanlights and sidelights.
Test Standard:	BS 476 Part 22:1987

3.2.11 Field of Application Report – Moralt Laminesse Firesmoke & Firesafe 54 – Chilt/A13059 Revision C

The referenced field of application report, the essential details of which are summarised below, contains primary test data for the Laminesse Firesmoke & Firesafe 54 proprietary door design covered by this field of application report.

Validity:	From: 9th December 2019 to 9th December 2024.
Certification body:	Warringtonfire Testing and Certification Ltd.
Sponsor:	Moralt AG
Product:	Latched and unlatched, single and double acting, single leaf, timber based, flush doorsets.
Orientation to fire risk:	Based on the testing conducted, doorsets to this design may be hung to open either away from or towards the fire risk side of the doorset.
Construction:	Leaves comprise Spruce/Fir/Pine core and faced on each side with 6 (t) MDF, Chipboard or 4 (t) Ply veneer facings. All leaf edges are lipped with 6-19 (t) hardwood of nominal density 640kg/m^3. The testing conducted covers several types of perimeter intumescent seals and intumescent gaskets for hardware protection. Leaves may be glazed to a maximum area of 0.56m^2 utilising a range of glazing systems and non-insulating and insulating glass types. The testing conducted for the Laminesse Firesmoke & Firesafe 54 designs includes the use of a range of hardware including hinges, pivots, concealed and overhead surface mounted closers, single and multipoint latches and locks and a range of door furniture. Doorsets may include transomed solid overpanels and fanlights.
Test Standard:	BS 476 Part 22:1987

Upon the time of release of this supplementary field of application assessment all assessments specified above covering the door designs permitted in this assessment are currently valid. It is the responsibility of users to check that the cited versions of such supporting documentation remain valid at the time of use. If any of the assessments are not revalidated once the validity period is reached or an extension letter is not in place, then this door core must be removed from the scope of this assessment and can no longer be used. Where new revisions or revalidations of supporting documentation have been issued they must be checked against those referenced in this report and, if their scope has changed, Warringtonfire must be consulted to review and consider the effect of these changes on the scope and conclusions of this report.

4 Technical Specification

4.1 General

The technical specification for the proposed door assemblies fitted with the proposed hardware is given in the following sections and is based on the test evidence for the locks and door designs, summarised in section 3.

4.2 Intended Use

The intended use of the proposed door assembly is summarised below:

A pedestrian doorset including any frame, door leaf or leaves which is provided to give a fire resisting capability when used for the closing of permanent openings in fire resisting separating elements, which together with the building hardware and any seals (whether provided for the purpose of fire resistance or smoke control or for other purposes such as draught or acoustics) form the assembly.

4.3 Door Leaf

It has been proposed to consider the Borg Locks (UK) Ltd. products specified in section 2 of this assessment, with the following proprietary fire resisting doorsets. The assessment will only consider the permitted configuration for each door manufacturer when fitted with one of the Borg Locks (UK) Ltd. products. The full construction requirements in the relevant manufacturer's door assessment specified in section 3.2 of this assessment must be complied with.

All door designs permitted have demonstrated a minimum of 30 or 60 minute fire resistance as indicated in each door assessment listed in section 3.2 of this report.

The Borg Locks (UK) Ltd. BL2501 keypad fitted with a latch has been successfully tested installed into a Strebord 44 and Strebord 54 doorset in test report Chilt/RF13246 and is therefore covered with these door designs.

For all other door designs, Borg Locks (UK) Ltd. latches all comply with the size and material requirements for alternative latches in each of the door assessments and are therefore permitted to be installed in all doorset designs specified in the table below.

The 3No Borg Locks (UK) Ltd. keypad designs covered in this assessment are face fixed to the door leaf and require no additional material to be routed out of the door to accept them. Additionally, considering the keypads have been successfully tested in a similar 44mm and 54mm thick timber doorset design for both 30 and 60 minutes fire resistance whistle achieving overrun in both cases in test report Chilt/RF13246, Warringtonfire have permitted the use of the Borg Lock (UK) Ltd. key pad designs in each of the doorset designs listed in the table below.

The following table shows the door blank designs permitted in this assessment.

Manufacture	Door Blank	Integrity Rating	Door Construction
Falcon Panel Products Ltd.	Strebord 44	30 minutes	Graduated density particleboard
	Strebord 54	60 minutes	
Halspan	Prima 30	30 minutes	3-layered particleboard
	Prima 60	60 minutes	
Pacific Rim Wood UK Ltd.	Flamebreak 30	30 minutes	3-layered lamel core
	Flamebreak 60	60 minutes	
Blankfort Inc.	Blankfort 60/60+	60 minutes	Lamel core
Egger (UK) Ltd.	Egger Decor 30	30 minutes	Graduated density particleboard
	Eurospan 60	60 minutes	3-layered particleboard
Moralt AG	Laminsse FireSafe & FireSmoke 44/54mm	30 minutes	Spruce/Fir/Pine with MDF/Chipboard or ply veneer facings
	Laminsse FireSafe & FireSmoke 54mm	60 minutes	

All construction details for the doorset designs must comply with the relevant door assessment specified in section 3.2 of this report, unless otherwise stated herein.

4.4 Door Frames

Door frames must comply fully with the requirements of the door assessment as listed in section 3.2 of this report.

4.5 Doorset Configurations & Maximum Leaf Sizes

4.5.1 Configuration

The table below shows the permitted configuration for all the doorset designs covered in this supplementary FoA, with the abbreviation and full description of each configuration. This is based on successful tested evidence of the Borg Locks (UK) Ltd. products in report Chilt/RF13246.

Doorset Configurations		
Depiction	Abbreviation	Description

Doorset Configurations		
Depiction	Abbreviation	Description
	LSASD	Latched Single Acting Single Doorset

4.5.2 Orientation

All doorsets covered in this assessment have been tested or assessed in both directions and can be installed opening in or away from the fire risk side.

4.5.3 Maximum Leaf Sizes

The maximum leaf sizes linking to the correct perimeter intumescent specification in each door assessment listed in section 3.2 of this report must be complied with.

4.6 Borg Locks (UK) Ltd. Hardware

The following section details the permitted scope and constraints for fitting the Borg Locks (UK) Ltd items of hardware to the proposed doorset designs.

The following items of hardware are permitted in this assessment.

- BL2501 (key pad handle lockset).*
- BL2401 (key pad handle lockset).*
- BL2701 (key pad handle lockset).*
- S709 anti-tamper mortice latch.*

*The above locksets are covered with the following latch body backset sizes: 28mm, 50mm, 60mm & 70mm.

The backset size tested in all cases in test report Chilt/RF13246 was 60mm. The backset size only determines where the handle/keypad will be situated on the face of the door leaf. With the handles being face fixed, Warringtonfire have permitted the use of the backset sizes listed above as these would have no significant effect on the doorset fire resistance performance.

4.6.1 Borg Locks (UK) BL2501, BL2401 & BL2701Key Pad Handle Lockset

The BL2501 key pad handle, made of zinc alloy, was successfully tested in test report Chilt/RF13246. The key pad with installed with a stainless steel tubular mortice latch with a forend measuring 58mm high x 30mm wide x 3mm thick and a 60mm backset which was installed 775mm from the door leaf threshold in the closing edge of both a Strebord 44 and Strebord 54 doorset. There was no failures associated with the latch or handle for the 30 minute doorset with the test terminating at 46 minutes. There was no failures associated with the latch or handle for the 60 minute doorset with the test terminating at 69 minutes. Both doorsets where fitted with 1mm thick Interdens encasing the latch body and behind the latch forend and keep.

Test report Chilt/RF13246 demonstrates the BL2501 key pad handle lockset can be fitted to a 44mm thick and 54mm thick timber doorset for 30 and 60 minutes fire resistance whilst achieving overrun in integrity performance in both cases.

The BL2401 & BL2701 key pad handle locksets are of the same material and basic construction as the successfully tested BL2501 key pad handle and are therefore permitted.

The key pad handle locksets must be installed complying with the following requirements;

- Permitted with all the door types in listed in section 4.3.
- Permitted in Latched, Single Acting, Single Leaf configuration only.
- Maximum 1No key pad handle per leaf face and 1No latch per doorset.
- The latch must be installed centrally within the leaf closing edge at a location determined by the latch position. This must be within the requirements of the door assessment which are listed in section 3.2.
- Must be fitted with the successfully tested tubular mortice latch or the S909 latch specified in section 4.6.2.
- No intumescent is required behind the key pad.
- 1mm thick Interdens must be fitted encasing the latch body and behind the latch forend and keep. If the specified primary door assessment requires 2mm thick intumescent for 60 minute applications for latch/locks then this must be fitted instead of the 1mm thick Interdens.
- The latch forend may fully interrupt the perimeter intumescent seal in the closing edge for FD30 doorsets.
- The perimeter intumescent must be fitted centrally 10mm apart in the frame reveal or leaf edge so both seals are only partially interrupt for FD60 doorsets.
- The latch must be installed with a tight fit into the routed out section including the intumescent protection.
- Must be installed in line with the manufactures instructions using 2No M4 x 15mm long steel screws.
- The drawings below show the 3 key pad handle designs.

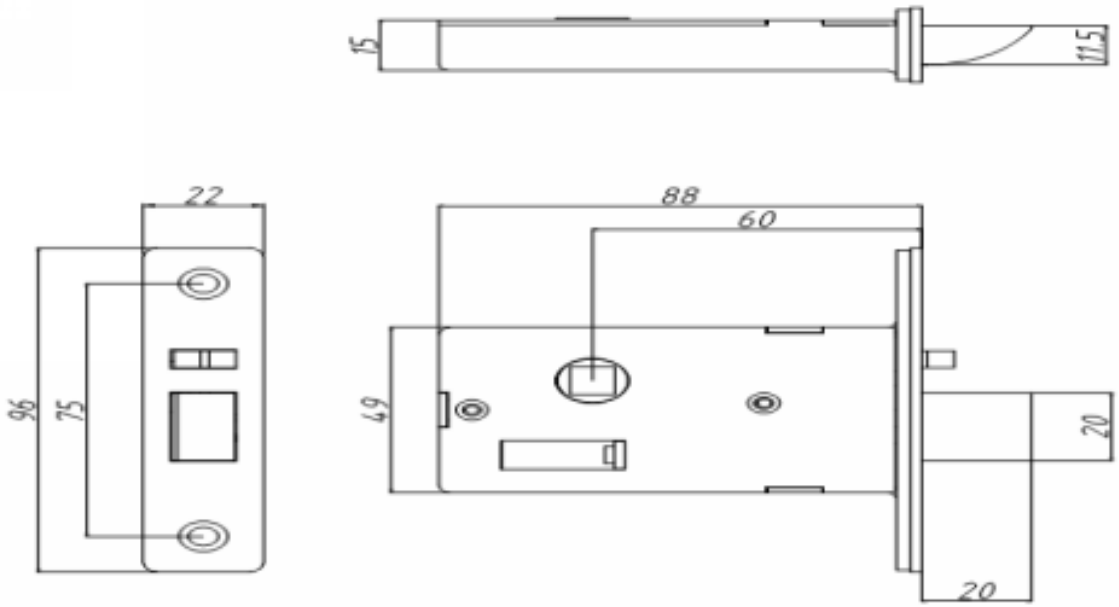
BL2501 BL2701 BL2401

4.6.2 Borg Locks (UK) S709 Anti-Tamper Mortice Latch

The S709 anti-tamper steel mortice latch has not been tested. The latch forend measures 96mm high x 22mm wide which is 38mm higher than the tested latch but 8mm less wide. This reduced width will decrease the account of interruption of both seals for 60 minute applications. Considering that the materials and fixings are the same as the tubular mortice latched tested in report Chilt/RF13246 and that the dimension are within the requirements for alternative latches in all the door assessment specified in section 3.2 of this report, Warringtonfire have permitted the Borg Locks (UK) Ltd. anti-tamper steel mortice latch to be fitted in all the doorsets specified in section 4.3.

The mortice latch must be installed complying with the following requirements;

- Permitted with all the door types in listed in section 4.3.
- Permitted in Latched, Single Acting, Single Leaf configuration only.
- Maximum 1No latch per doorset.
- The latch must be installed centrally within the leaf closing edge and must be within the requirements of the door assessment which are listed in section 3.2.
- May be fitted with the key pad handles within section 4.6.1 if required.
- 1mm thick Interdens must be fitted encasing the latch body and behind the latch and keep forend. If the door assessment requires 2mm thick intumescent for 60 minute applications for latch/locks then this must be fitted instead of the 1mm thick Interdens.
- The latch forend may fully interrupt the perimeter intumescent seal in the closing edge for FD30 doorsets.
- The perimeter intumescent must be fitted centrally 10mm apart in the frame reveal or leaf edge so both seals are only partially interrupt for FD60 doorsets.
- The latch must be installed with a tight fit into the routed out section including the intumescent protection.
- Must be installed in line with the manufactures instructions using 2No M4 x 15mm long steel screws.
- The drawings below show a drawing of the mortice latch with dimensions.



S709 Anti-Tamper Mortice Latch

5 Conclusion

This supplementary field of application report provides a scope of application for the following Borg Locks (UK) Ltd. products:

- BL2501 (key pad handle lockset)
- BL2401 (key pad handle lockset)
- BL2701 (key pad handle lockset)
- S709 anti-tamper mortice latch.

It is our opinion that, provided the requirements of this supplementary FoA and all other details as given in the relevant Primary FoA for the doorset design (see section 4.3) are complied with, if a complete doorset were to be tested in accordance with BS 476 Part 22:1987, it would provide a minimum of 30 or 60 minutes integrity performance, as appropriate to the door leaf thickness.

6 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: _____

Position: _____

Date: _____

For and on behalf of: Borg Locks (UK) Ltd.

7 Limitations

The following limitations apply to this assessment:

1) This 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 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 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 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 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 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.

8 Validity

1) The assessment is initially valid for five years after which time it is recommended to be submitted to Warringtonfire for re-appraisal.
2) This assessment report is not valid unless it incorporates the declaration given in Section 6 duly signed by the applicant.

Signature:		
Name:	***Liam Dunk**	***Andrew Winning**
Title:	Product Assessor	Senior Product Assessor

* For and on behalf of Warringtonfire

Appendix A: Summary of Supporting Test Evidence

Report No	Configuration	Leaf Size (mm)	Test Standard	Performance (mins)	
Chilt/RF13246	A:LSASD	2135 (h) 928 (w) 54 (t)	BS EN 1634-1 & BS EN 1363-1	Integrity	66
				Insulation	65
	B:LSASD	2135 (h) 928 (w) 44 (t)		Integrity	41
				Insulation	39

Appendix B: Revisions

Rev.	WF Ref.	Date	Description
A	WF504922	18/08/21	Technical review and updated in line with the general principles of BS EN 15725. Change to supplementary assessment and to conclude to BS 476 Part 22: 1987.