

**Title:**

The Fire Resistance  
Performance Of Previously  
Fire Tested Timber/ Mineral  
Doorsets When Fitted With  
'Anza' Flush Mounted And  
'Anza' Surface Mounted Bolts

**WF Assessment Report  
No:**

**303926 Issue 2**

**Prepared for:**

**Royde & Tucker Ltd**

Bilton Road, Cadwell Lane,  
Hitchin, Hertfordshire  
SG4 0SB

**Date:**

18<sup>th</sup> April 2011

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## Foreword

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This assessment report has been commissioned by Royde & Tucker Ltd and relates to the fire resistance of flush mounted and surface mounted bolts.

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 report uses established empirical methods of extrapolation and experience of fire testing similar locksets, 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 EN 1634-1.

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.

The scope presented in this report relates to the behaviour of the bolts under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the bolts in use.

This report 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 - 2021'. 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.

## Executive Summary

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**Objective** This report presents an appraisal of the fire resistance performance of previously tested (or assessed by Warringtonfire) insulated, single-acting, timber or mineral based doorsets in single or double leaf configurations when fitted with 'Anza' surface mounted or 'Anza' FFD flush mounted bolts.

**Report Sponsor** **Royde & Tucker Limited**

**Address** Bilton Road, Cadwell Lane, Hitchin, Hertfordshire, SG4 0SB

**Summary of Conclusions** Should the recommendations given in this report be followed, it can be concluded that fully insulated single-acting doorsets which have previously been successfully fire tested by a Notified laboratory, or assessed by Warringtonfire, which have achieved up to 60 minutes integrity and insulation performance in accordance with EN 1634-1, as discussed in this report, may be fitted with 'Anza' surface mounted or 'Anza' FFD flush mounted bolts, without detracting from the overall achieved performance of the doorset.

This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with EN1634-1, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this report would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

**Valid until** 7<sup>th</sup> June 2027

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## Introduction

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This report presents an appraisal of the fire resistance performance of previously tested (or assessed by Warringtonfire) fully insulated, single-acting, timber or mineral based doorsets in single or double leaf configurations, when fitted with 'Anza' surface mounted or 'Anza' FFD flush mounted bolts.

The doorsets onto which the bolts are to be fitted may be latched or unlatched and may be of single-leaf or double-leaf configurations.

The proposed doorsets are required to provide a fire resistance performance of up to 60 minutes integrity and insulation with respect to EN 1634-1.

### FTSG / PFPF

The data referred to in the supporting data section has been considered for the purpose of this appraisal which has been prepared in accordance with the Fire Test Study Group Resolution No. 82: 2001 and the Passive Fire Protection Federation (PFPF) Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence - 2021.

## Assumptions

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### Supporting construction

It is assumed that the construction, which supports the proposed doorset assembly, will have been the subject of a separate test and its performance is such that it will not influence the performance of the doorset for the required period.

### Clearance gaps

Door leaf to frame clearance gaps can have a significant effect on the overall fire performance of a doorset. It is therefore assumed that the leaf to leaf and leaf to frame clearance gaps will not exceed those measured for the relevant fire tested doorset and in any case shall not exceed 3.0 mm.

### Doorset details

It is assumed that the proposed bolts will be fitted to timber based door leaves which have previously been shown to be capable of providing up to 60 minutes integrity and, where relevant, insulation performance in the same configuration as that proposed, with regard to:

- a) Single-acting, single or double-leaf
- b) Latched or unlatched

When mounted within the door leaf edge the 'Anza' FFD flush mounted bolts shall be subject to the specific fitting restrictions detailed later in this report.

## Proposals

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It is proposed that the 'Anza' surface mounted or 'Anza' FFD flush mounted bolts may be fitted to timber based doorsets, the specification of which has previously been successfully fire tested by a Notified laboratory (or previously assessed by Warringtonfire), for periods of integrity and, where relevant, insulation performance of up to 60 minutes.

It is proposed that the doorsets may be of single or double-leaf, single-acting configurations.

## Basic Evidence

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### CFR No. 1009301

The report referenced CFR No. 1009301 and described briefly in the supporting data section of this report details a test conducted in accordance with BS EN 1634-1: 2008, on two specimens of timber based doorset of a typical 30 minute construction.

The right hand doorset was of a single-acting, double-leaf construction and incorporated various items of door hardware including Anza ANZ-220-BSS-FFD flush mounted bolts fitted to the leading edge stile of the right hand door leaf at its head and base. Surface mounted Anza ANZ-220-BSS-FD bolts were mortised into the fire exposed face of the left hand door leaf at its head and base. A second pair of surface mounted Anza bolt housings (without bolts) was mortised into the unexposed face of the door leaf at corresponding positions to those on the exposed face.

The test demonstrated the ability of Doorset B to provide 41 minutes integrity and insulation performance. The test was discontinued after a duration of 51 minutes.

### CFR No. 1008181

The test referenced CFR No. 1008181 and described briefly in the supporting data section of this report details a test conducted in accordance with BS EN 1634-1: 2008, on a specimen of double-leaf, single-acting timber based doorset of a typical 60 minute construction and a specimen of double-leaf, double-acting timber based doorset of a typical 60 minute construction.

The single-acting left-hand doorset incorporated various items of door hardware including Anza ANZ-220-BSS-FFD flush mounted bolts fitted to the leading edge stile of the left hand door leaf at its head and base. Surface mounted Anza ANZ-220-BSS-FD bolts were mortised into the fire exposed face of the right hand door leaf at its head and base. A second pair of surface mounted Anza bolt housings (without bolts) was mortised into the unexposed face of the door leaf at corresponding positions to those on the exposed face.

Initial integrity failure of the single-acting left-hand doorset, not associated with the bolt assemblies, occurred after 57 minutes, with no other mode of integrity failure (directly associated with any of the bolts) recorded until after 64 minutes; the test being discontinued after a duration of 65 minutes.

## Test report review

The original test reports used in support of this assessment have been reviewed and it has been concluded that the test data remains acceptable and the final result would be unchanged on the following basis:

- A comparison of the test procedures and performance criteria with the current standard has identified that any variations would have no detrimental impact on the performance of the doorset and hardware under test
- The client has confirmed that there has been no change to the design or material specification of the hardware tested originally, consequently.
- The reports are available in their entirety, the products are adequately referenced and linked to the products being considered for assessment, and the ownership of the test data has been confirmed as the assessment report holder.

## Assessed Performance

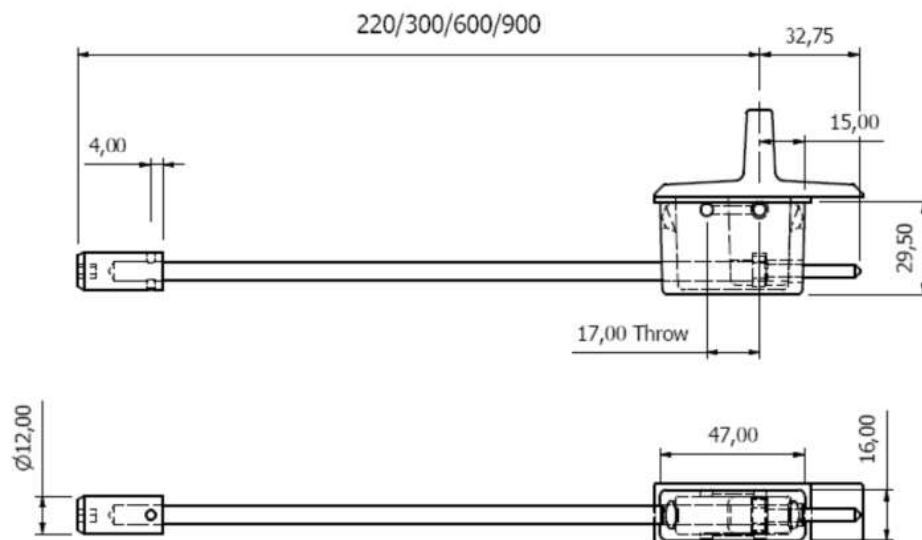
### General

Both versions of the Anza bolts are constructed mainly of stainless steel and are provided in a range of lengths to suit the door leaf height. The range of bolt lengths includes 220mm, 300mm, 450mm, 600mm and 900mm.

The bolt housing, bolt diameter and bolt throw remain the same throughout the range with the only change from one length to the next being the length of the connecting rod which is concealed within the door leaf.

Whilst the tests described previously have demonstrated the abilities of both types of Anza bolt to be fitted to the specific timber doorset constructions, and at the specific leaf sizes, this report considers the abilities of the bolts when fitted to different, previously tested doorset constructions, and in the case of the flush mounted version, the maximum door leaf heights to which the bolts can be confidently fitted without detracting from the performance of the doorset.

### Surface mounted Anza bolt



During the tests referenced CFR No. 1009301 and CFR No. 1008181 surface mounted Anza bolts referenced 'ANZ-220-BSS-FD' were mounted into the face of the door leaf from the exposed side at the head and base of the door. Additional bolt housings without connecting rods or bolts were mounted into the face of the door leaf on its unexposed face at positions corresponding with those mounted to the exposed face.

When mounted within the 30 minute doorset construction tested under the reference CFR No. 1009301, both sets of complete bolts and bolt housings were not a cause of any mode of integrity failure of the doorset until after at least 45 minutes of testing were sustained flaming occurred at the head of the meeting stiles.

No instance of integrity failure, or imminent integrity failure was noted at the positions of the unexposed face mounted bolt housings, or coincident with the positions of the exposed face mounted bolt assemblies throughout the test duration.

Similarly when mounted within the 60 minute doorset construction tested under the reference CFR No. 1008181, no instance of integrity failure occurred in the location of the flush bolts until after 64 minutes of testing, at which time flaming from other areas of the doorset spread to the location of the bolt at the head of the door leaf and no further evaluation was possible.

CFR No. 1008181 did include a second doorset which has been redacted from the final report. The test lab has subsequently confirmed that this doorset had an earlier failure due to flaming at mid height of the pivoted side of the smaller leaf, where deflection of 60mm was recorded. However as the doorset was double acting and pivoted the failure associated with this doorset can be disregarded for the single-action applications considered within this report.

In both tests complete 220 mm bolt assemblies with corresponding bolt holes and strike plates to the door frame head and threshold were fitted into the door leaf such that they were mounted on the exposed side of the doorset. Additional bolt housings were mortised into the unexposed face to provide additional evaluate of the influence of the bolt assemblies where they are fitted from the unexposed side.

In both instances the mortice containing the bolt housing was lined with a layer of Interdens 'Type 15' sheet intumescent material, 1 mm thick, such that all sides of the mortice were covered. A layer of the same Interdens material was fitted behind the bolt face plate to the head of the door leaf and also behind the strike plate mounted into the head of the door frame.

The test evidence therefore provides a high degree of confidence in the ability of the surface mounted Anza bolt at the smallest length of 220 mm to be fitted in the same manner to other, previously proven timber based doorsets required to provide 30 or 60 minute integrity performances without detriment to the doorset's performance.



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The longer models at 300mm, 450mm, 600mm and 900mm all share the same bolt housing as the tested unit and differ from it only in that they use a progressively longer connecting rod which passes through an 8 mm diameter hole drilled down the centreline of the door leaf.

The difference from the shortest to the longest bolt assembly is not considered to give any concern as to the ability of the bolt to be fitted to the door constructions tested, or other similar proven door constructions when fitted with the same level of intumescent protection as described previously.

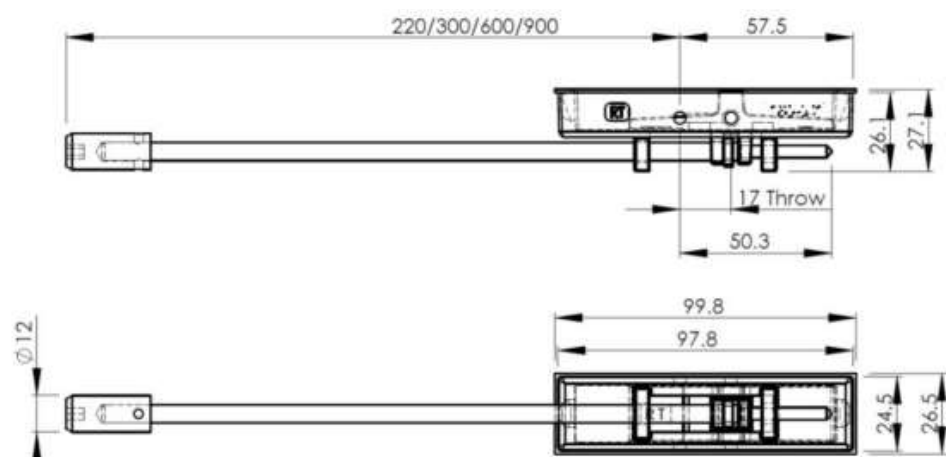
Furthermore, the addition of the bolt housings mounted from the unexposed side of the tested door leaves also demonstrates that the installation of the bolts from either side of the door leaf has no significant influence on its performance, or its contribution towards the required performance of the doorset for fire resistance periods of up to 60 minutes.

The performance of the surface mounted Anza bolts at all sizes from 220mm to 900mm is therefore positively appraised for use with previously proven timber or mineral based doorsets for fire resistance periods of up to 60 minutes without any limitation on the height of door leaf to which they can be fitted.

### Face mounted

In addition to the tested stile mounted position, it is further considered acceptable to mount the Anza flush bolts into the face of the door leaf in a similar manner to the surface mounted Anza bolts. Installation of the bolts in this way will still require the use of the intumescent protection to the bolt housing mortice and the rear of the upper face and strike plates but will not be subject to the maximum height restrictions stated for leaf edge mounting.

### Flush mounted Anza bolt



The flush mounted Anza bolt differs from the surface mounted version in that the whole of the bolt housing and lever assembly are fitted within the surface of the door leaf. This allows the flush Anza bolts to be fitted into the meeting edge stile of the passive leaf of double leaf doorsets with square meeting stiles.

Again this model is available in sizes at 220mm, 300mm, 450mm, 600mm and 900mm simply by the use of differing lengths of connecting rods.

In both the tested doorsets in CFR No. 1009301 and CFR No. 1008181, the flush units fitted to the doorsets were ANZ-220-BSS-FFD. The bolt housing in each instance was mounted within a mortice cut through the door leaf edge lipping and into the leaf core. The mortice was lined on all faces with a layer of Interdens 'Type 15' intumescent sheet material, 1 mm thick, as were the mortises cut for the guide plate in the head of the door leaf and strike plate in the head of the door frame.

Additionally the perimeter intumescent fire seals in the meeting edge were fitted in the primary leaf and consequently were not interrupted by the flushbolt face.

The 30 minute doorset construction tested under CFR No. 1009301 achieved an integrity performance of 41 minutes before the initial integrity failure and it can be confidently determined that no integrity failure associated with the presence or position of the flush Anza bolts occurred until at least 45 minutes meaning that there was an overrun of performance in the location of the bolts of 50%.

The performance demonstrated by the tested bolt assemblies provides a high degree of confidence in their ability to be fitted to other, previously proven doorset assemblies without detriment to the doorsets performance. It should however be considered that the flush mounted bolt poses slightly different concerns to its surface mounted counterpart.

This concern lies only with the positioning of the upper bolt in that the positioning of the bolt housing, relative to the door threshold and its installation into the junction between the door leaves must be carefully considered as varying overall door leaf heights can have a significant effect on the exposure conditions to which the door assembly and flush bolts are exposed.

The standard test conditions used to evaluate doorsets require a pressure gradient within the furnace chamber which is calculated and controlled within the specified tolerances. The furnace pressure is progressively more positive as a function of height. Consequently a taller doorset is subjected to a higher and more severe exposure condition at its head in that hot furnace gases will be forced through any gaps in the construction such as the leaf to leaf meeting edge gap.

It therefore follows that whilst the tested bolt assemblies suitably demonstrated their performance on the tested door leaf heights of 2201 mm and 2042 mm (30 and 60 minute doorsets respectively), this does not provide as onerous a condition were the same size bolt assembly to be fitted to a significantly taller door leaf. The interruption to the meeting edge seals and introduction of the bolt housing within the meeting edge junction at a higher pressure must therefore be considered and some limitation made on the positioning of the bolts to ensure that the required performance can be maintained.

In reality a taller door leaf would use one of the longer bolts from the range and this would generally maintain the bolt housing at a reasonable height.

However, to ensure that bolts are not installed at unsuitable positions, the maximum distance from the base of the door leaf to the centre of the bolt lever shall be limited to 2481 mm for 30 minute doorsets and 2000 mm for 60 minute doorsets. These figures are based on the tested leaf heights with some additional allowance for the overrun of performance gained in each test. When applied to actual door leaf heights these limits allow the different length bolts to be installed to doors having the maximum heights shown in the table below.

Bolt length	220mm		300mm		450mm		600mm		900mm	
Maximum door leaf height	FD30	FD60	FD30	FD60	FD30	FD60	FD30	FD60	FD30	FD60
		2700	2220	2780	2300	2950	2450	3080	2600	3380

### Intumescent protection

It is a requirement of this appraisal that in all instances the Anza flush mounted and Anza surface mounted bolts must be installed with the same type and level of intumescent protection described earlier for the tested bolt assemblies, including the uninterrupted perimeter fire seals within the meeting edge.

### Alternative doorsets

To enable the use of the bolts on a range of doorsets, it is necessary to address the available information on the proposed doorset. As this appraisal is intended to be used on a general basis and not restricted to any particular manufacturer of fire resisting doorsets, the following points are given to enable the bolts to be used safely:

- a) The doorset, including the door frame and associated ironmongery should have achieved up to 60 minutes integrity and insulation performance, when tested by a Notified laboratory (or assessed by Warringtonfire) to EN 1634-1.
- b) If the proposed doorset is to be used in double-leaf configurations, the test or assessment evidence should be applicable to double-leaf configurations.
- c) Likewise, if the proposed doorset is to be used in unlatched configurations then the available test evidence should be applicable to unlatched doorsets.
- d) The door frames of doorsets shall have a minimum density of 600kg/m<sup>3</sup> for 30 minute doorsets and 640kg/m<sup>3</sup> for 60 minute doorsets.
- e) Door leaves shall have a minimum thickness of 44 mm for 30 minute doorsets and 54 mm for 60 minute doorsets.
- f) All door leaves shall be lipped on all four edges with timber lippings having a minimum thickness of 8 mm and a minimum density of 640kg/m<sup>3</sup>.

The fitting of the Anza surface mounted and flush mounted bolts onto alternative doorsets, on the basis of compliance with the conditions given above, is therefore considered to be acceptable.

## Conclusions

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Should the recommendations given in this report be followed, it can be concluded that fully insulated single-acting doorsets which have previously been successfully fire tested by a Notified laboratory, or assessed by Warringtonfire, which have achieved up to 60 minutes integrity and insulation performance in accordance with EN 1634-1, as discussed in this report, may be fitted with 'Anza' surface mounted or 'Anza' FFD flush mounted bolts, without detracting from the overall achieved performance of the doorset.

This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with EN1634-1, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this report would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

## Review

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It has been confirmed by Royde & Tucker Ltd that there have been no changes to the specification, materials or manufacturing location of the door bolts considered in the original appraisal referenced WF Assessment Report No. 303926 issued 18<sup>th</sup> April 2011.

The original assessment has been written using appropriate test evidence generated at accredited test laboratories. The supporting test evidence has been deemed appropriate to support the manufacturers stated design.

The defined scope presented in the original assessment report relates to the behaviour of the proposed design under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the door bolts in use.

This revalidation has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the PFPF guidelines to undertaking assessments in lieu of fire tests. 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 in lieu of fire tests for building control and other purposes.

The PFPF guidelines are produced by the UK Fire Test Study Group (FTSG) an association of the major fire testing laboratories in the UK and are published by the PFPF, the representative body for the passive fire protection industry in the UK.

The data used for the original appraisal has been re-examined and found to be satisfactory. The procedures adopted for the original assessment have also been re-examined and are similar to those currently in use.

Therefore, with respect to the assessment of performance given in WF Assessment Report No. 303926, the contents should remain valid for a further 5 years.

This review is based on information used to formulate the original assessment. No other information or data has been provided by Royde & Tucker Ltd which could affect this review.

The original appraisal report was performed in accordance with the principles of the UK Fire Test Study Group Resolution 82: 2001. This review has therefore also been conducted using the principles of Resolution 82: 2001.

## Validity

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The assessment is initially valid for five years after which time it is recommended to be submitted to Warringtonfire for re-appraisal.

This assessment report is not valid unless it incorporates the declaration given below duly signed by the applicant.

## Summary of Primary Supporting Data

**CFR No. 1009301** The report referenced CFR No. 1009301 describes a test conducted in accordance with BS EN 1634-1: 2008, on two specimens of timber based doorsets incorporating various items of doorset hardware.

The right hand doorset was of a double-leaf, single-acting arrangement and incorporated two timber based door leaves of unequal width.

The doorset had overall nominal dimensions of 2253 mm high by 1296 mm wide and incorporated two unequal width door leaves of overall nominal dimensions 2201 mm high by 826 mm wide and 375 wide by 44 mm thick. The leaves were hung on steel hinges within a Pine timber frame. The left hand door leaf was provided with two ANZ-220—BSS-FD surface mounted bolts mounted into the exposed face of the door leaf, and two additional bolt housings mounted as similar positions on the unexposed face of the door leaf. The bolts were not engaged for the test.

The right hand leaf was provided with two ANZ-220-BSS-FFD flush mounted bolts mounted into the edges of the door leaf at the head and base. Both bolts were engaged for the test.

The doorset was orientated such that the leaves opened towards the heating conditions of the test. The doorsets were rendered unlatched for the duration of the test.

The specimen satisfied the test requirements for the following periods:

		<b>RH Doorset</b>
<b>Integrity</b>	Sustained Flaming	42 minutes
	Gap Gauge	*51 minutes
	Cotton Pad	41 minutes
<b>Insulation</b>		41 minutes

\*The test duration. The test was discontinued after a period of 51 minutes.

The tested bolts were not independently sampled prior to testing.

Test date : 30<sup>th</sup> September 2010

Test sponsor : Royde & Tucker Ltd.

**CFR No. 1008181**

The report referenced CFR No. 1008181 describes a test conducted in accordance with BS EN 1634-1: 2008, on 2No. specimens of timber based doorsets incorporating various items of doorset hardware.

Both doorsets were of a double-leaf, single-acting arrangement and incorporated two timber based door leaves of unequal width.

The left-hand doorset had overall nominal dimensions of 2097 mm high by 1016 mm wide and incorporated two unequal width door leaves of overall nominal dimensions 2042 mm high by 667 mm wide and 252 wide by 54 mm thick. The leaves were hung on steel hinges within a Sapele timber frame. The right hand door leaf was provided with two ANZ-220—BSS-FD surface mounted bolts mounted into the exposed face of the door leaf, and two additional bolt housings mounted as similar positions on the unexposed face of the door leaf. The bolts were not engaged for the test.

The left hand leaf was provided with two ANZ-220-BSS-FFD flush mounted bolts mounted into the edges of the door leaf at the head and base. Both bolts were engaged for the test.

The left-hand doorset was orientated such that the leaves opened towards the heating conditions of the test. The doorsets were rendered unlatched for the duration of the test.

The right-hand doorset was redacted from the final report. The test lab confirmed on the 22<sup>nd</sup> March 2022 that core was multi-layered chipboard and the flushbolts were the same as the reported door, but positioned differently (perimeter Intumescent fire seals were the same type, but only single strips).

Latch, strike and handleset were different and the leaves were double acting and pivoted.

The failure of this doorset was due to flaming at mid height of the pivoted side of the smaller leaf, where deflection of 60mm was recorded, followed later by flaming at the meeting stile at the latch and then at the base.

The specimens satisfied the test requirements for the following periods:

		<b>LH Doorset</b>	<b>RH Doorset</b>
<b>Integrity</b>	Sustained Flaming	60 minutes	<i>Not recorded</i>
	Gap Gauge	*65 minutes	<i>Not recorded</i>
	Cotton Pad	57 minutes	<i>Not recorded</i>
<b>Insulation</b>		57 minutes	<i>Not recorded</i>

\*The test duration. The test was discontinued after a period of 65 minutes.

The tested bolts were not independently sampled prior to testing.

Test date : 18<sup>th</sup> August 2010  
Test sponsor : Royde & Tucker Ltd.



## Declaration by Royde & Tucker Ltd

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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

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.

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.

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.

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 82:2001)

Signature:



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Name:

Russell Coldwell

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Position:

Head of Technical Services

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Date:

8th June, 2022

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For and on behalf of:

Royde & Tucker Ltd.  
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## Limitations

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The following limitations apply to this assessment:

1. 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.
2. 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.
3. This report addresses itself solely to the elements and subjects discussed and do not cover any other criteria or modifications. All other details not specifically referred to should remain as tested or assessed.
4. This 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.
5. This field of application has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.
6. Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.
7. 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 against the ISO 834 time/temperature curve that is stipulated in the standard this assessment concludes to. 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.
8. This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with EN1634-1, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this report would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

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11. This report addresses itself solely to the elements and subjects discussed and do not cover any other criteria or modifications. All other details not specifically referred to should remain as tested or assessed.
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## Signatories

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Responsible Officer

R. Anning\* - Principal Product Assessor



Approved M. Tolan\* - Senior Product Assessor

\* For and on behalf of Warringtonfire.

Report Issued: 18<sup>th</sup> April 2011

**The assessment report is not valid unless it incorporates the declaration duly signed by the applicant.**

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## Revision History

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Written By: D. Forshaw	Approved By: A Kearns

Issue No: 2	Re-issue Date: 8 <sup>th</sup> June 2022
Revised By: R Anning	Approved By: M Tolan
Reason for Revision: 5-year review/revalidation	