

**NOTICE SEEKING CLEARANCE OF A BUSINESS ACQUISITION PURSUANT TO SECTION
66 OF THE COMMERCE ACT 1986**

26 March 2021

The Registrar
Business Acquisitions and Authorisations
Commerce Commission
PO Box 2351
Wellington

Pursuant to s66(1) of the Commerce Act 1986 notice is hereby given seeking **clearance** of a proposed business acquisition.

MinterEllisonRuddWatts

1. EXECUTIVE SUMMARY

- 1.1 ASSA ABLOY New Zealand Limited (**Assa Abloy NZ**) seeks clearance to acquire all of the shares in NZ Fire Doors Limited (**NZFD**) (**Proposed Transaction**).
- 1.2 Assa Abloy NZ (through its wholly owned subsidiary Pacific Doors Systems Limited (**Pacific Doors**)) and NZFD both supply a range of commercial doors and windows, including fire-rated doors and windows, some specialty doors and non-fire rated doors and windows, to end customers in New Zealand. Pacific Doors supplies doors predominantly for large commercial or institutional premises such as hospitals and prisons. NZFD supplies doors predominantly for apartment buildings, aged living residences and hotels. The Proposed Transaction delivers the opportunity for Pacific Doors to expand its portfolio into complementary customer segments, namely the supply of fire-rated doors for high density apartment buildings, aged living and hotels, where it currently has little presence.
- 1.3 The Proposed Transaction will not have the effect or likely effect of substantially lessening competition in any market:
- (a) there is limited overlap in the operations of Pacific Doors and NZFD, and they are not close competitors. While both parties supply a range of commercial doors and windows, the only significant area of overlap between them is in relation to the supply of 30-minute and 60-minute fire-rated doors. However, the parties' product offerings are differentiated, and they focus on different customer segments. NZFD supplies low-cost, low-specification fire-rated doors predominantly for residential apartments, hotels and retirement homes while Pacific Doors supplies higher-cost and higher-specification fire-rated doors predominantly for large commercial or institutional premises, such as hospitals and prisons;
 - (b) there is vigorous existing competition in the market for the supply of fire-rated doors and windows which will continue to constrain Pacific Doors post-transaction. Existing competitors include large door and window companies, such as Hallmark, Best Doors and Mattsons Joinery (**Mattsons**), and a large number of smaller suppliers. Post-acquisition, the merged entity will have a market share of less than 40%, which falls below the New Zealand Commerce Commission's (**Commission**) concentration indicators;
 - (c) the merged entity will continue to be constrained post-transaction by existing competition and potential competition from Australian suppliers of fire-rated doors. Barriers to entry into the New Zealand market are low for Australian fire-rated door suppliers who have already obtained certification for their products in Australia and there are a large number of suppliers of fire-rated door sets in Australia that could readily enter the New Zealand market in response to an increase in price. Assa Abloy NZ is aware from discussions with its customers that some Australian suppliers already supply fire-rated doors into the New Zealand market from time to time;
 - (d) there are very low barriers to entry for the supply of fire-rated windows; and
 - (e) the merged entity will also continue to be constrained post-transaction by the countervailing power of construction companies, who can credibly threaten to bypass the merged entity by acquiring from other New Zealand suppliers or importing product from Australia.

- 1.4 The Proposed Transaction will also not have any anti-competitive vertical effects. Assa Abloy NZ is already vertically integrated and, post-transaction, the merged entity will not have an increased ability or incentive to foreclose competition in any other segment in which Assa Abloy NZ competes, including in relation to the supply of fire-rated door cores or hardware. There are many other fire-rated door manufacturers remaining in the market who will continue to acquire from fire-rated door core and hardware suppliers. Further, the vast majority of doors supplied by the parties are “*naked*” (i.e. without hardware) and the acquisition of hardware is the decision of the customer.
- 1.5 The Proposed Transaction does not result in any coordinated effects because, amongst other things, there is a high degree of product differentiation, no transparency of pricing and volumes and the Proposed Transaction will not result in the removal of a particularly vigorous or effective competitor.

2. APPLICANT AND OTHER PARTIES

The Applicant

2.1 This notice seeking clearance is given by Assa Abloy NZ.

2.2 Contact details for Assa Abloy NZ are:

Postal address: 6 Armstrong Road, Albany, North Shore City, 0632, New Zealand

Physical address: 6 Armstrong Road, Albany, North Shore City, 0632, New Zealand

Telephone: (09) 448 9188

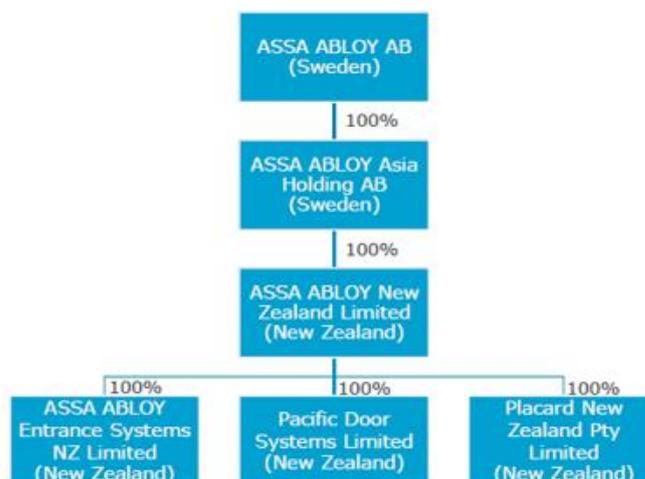
Web address: <https://www.assaabloyopeningsolutions.nz/en/>

Contact person: Simon Ellis, President – Pacific Region and Japan

simon.ellis@assaabloy.com

+61 (3) 8574 3493

2.3 Assa Abloy NZ is part of the global Assa Abloy Group. It is wholly owned by ASSA ABLOY Asia Holding AB, which is ultimately owned by Assa Abloy AB. In New Zealand, Assa Abloy NZ supplies a range of door products itself and through its subsidiaries Assa Abloy Entrance Systems NZ Limited, Pacific Doors and Placard New Zealand Pty Limited. A diagram showing the ownership structure of Assa Abloy NZ is below:



2.4 The company relevant to the assessment of the Proposed Transaction is Pacific Doors, which supplies door and window systems for fire, acoustic, security, hospital, mental health, ballistic and commercial purposes.

2.5 All correspondence and notices in respect of this application should be directed in the first instance to:

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Auckland 1143

Dr Ross Patterson
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The other party

2.6 The other party is NZ Fire Doors Limited.

2.7 Contact details for NZFD are:

Postal address: Catapult Partners Chartered Accountants Limited, Suit A, Building B, 42 Tawa Drive, Albany, Auckland 0751, New Zealand

Physical address: 89 Gavin Street, Mount Wellington 1060, Auckland, New Zealand

Telephone: (09) 579 8896

Web address: <https://www.nzfiredoors.co.nz/>

Contact person: David Miller

+64 9 580 0632

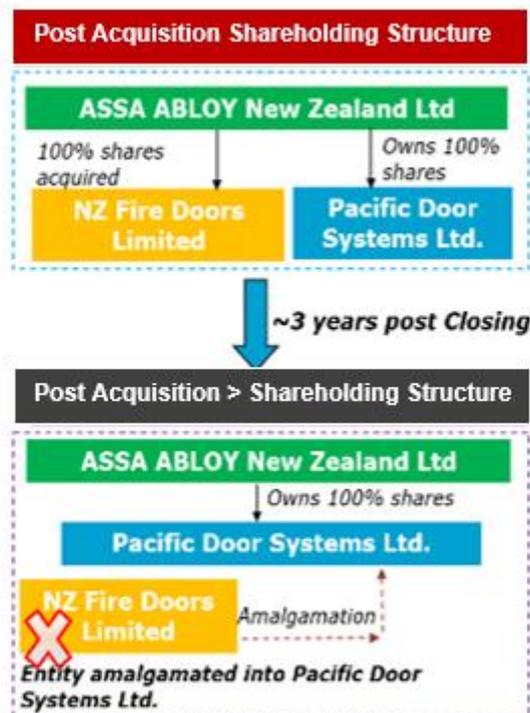
- 2.8 All correspondence and notices in respect of this application should be directed in the first instance to:

Chris Taylor Director
WRMK Lawyers
+64 9 470 2456
Chris.Taylor@wrmk.co.nz

3. TRANSACTION DETAILS

The proposed transaction

- 3.1 Assa Abloy NZ proposes to acquire all of the shares in NZFD. Following the Proposed Transaction, Assa Abloy NZ will wholly own and control NZFD.
- 3.2 Assa Abloy NZ also wholly owns Pacific Doors. It proposes to merge NZFD with Pacific Doors over a two-year period after completion of the Proposed Transaction. The integration of Pacific Doors and NZFD over this two-year period will focus on merging and integrating three key areas of the businesses: financial reporting (that is, to align the businesses reporting practices), IT (i.e. upgrading and integrating the IT systems of the two businesses) and human resources (i.e. moving to a centralised payroll system, integrating staff training etc).
- 3.3 NZFD is currently owned by four shareholders: William Treuren (70%); Euan Williamson (20%); and David Miller and Fiona Miller (together, 10%).
- 3.4 A diagram showing the post-transaction ownership of NZFD is below:



- 3.5 The Proposed Transaction will be implemented under the terms of a share transfer agreement entered into on 27 January 2021 (**STA**). The STA is confidential. A copy of the STA is at Confidential Annexure 4.
- 3.6 Completion of the Proposed Transaction is conditional on a range of conditions including receipt of clearance from the Commission.¹

The rationale for the transaction

- 3.7 The Proposed Transaction will combine Pacific Doors' and NZFD's largely complementary fire-rated door and window businesses. It will allow Pacific Doors to compete more effectively in segments where it has very little presence, namely the supply of fire-rated doors for high density apartment buildings.

Counterfactual

- 3.8 Absent the Proposed Transaction, the most likely counterfactual is a continuation of the status quo.

Other competition agencies that are being notified

- 3.9 The Proposed Transaction only relates to New Zealand. No competition agencies in other jurisdictions have been or will be notified of the Proposed Transaction.

4. THE ACTIVITIES OF THE PARTIES TO THE TRANSACTION

The Applicant – Assa Abloy NZ

- 4.1 The Assa Abloy Group is a global manufacturer and supplier of a range of door opening products, security solutions and related services.
- 4.2 Assa Abloy Group's Asia Pacific division manufactures and sells mechanical and electromechanical locks, digital door locks, high-security and other specialty doors and hardware. China accounts for []% of its sales, with South Korea and the rest of Asia accounting for []%, Australia and New Zealand for []%, and exports to the rest of the world for []% of the division's sales.
- 4.3 Assa Abloy NZ supplies a broad range of door and window hardware including keyless entry systems, door hardware, locking systems and access control systems. Its key brands are Lockwood, Abloy, Aperio, Cliq, Yale, Trimec, and Traka.
- 4.4 Further information about Assa Abloy NZ can be found at www.assaabloyopeningsolutions.nz.
- 4.5 Assa Abloy NZ has three New Zealand subsidiaries:
- (a) Assa Abloy Entrance Systems. It supplies products, services and components in entrance automation, including automatic swing, sliding and revolving doors, industrial doors, garage doors, high-performance doors, docking solutions, hangar doors, gate automation, components for overhead sectional doors and sensors. As NZFD does not supply these products, they are not considered further in this

¹ See clause 5.1 of the STA.

application. Further information about this company can be found at <https://www.assaabloyentrance.co.nz/en/>;

- (b) Placard New Zealand Pty Limited. It is a manufacturer of secure plastic cards and accredited by all major schemes, providing service-based product solutions that are used by the most recognised brands in financial, retail, identification, government, loyalty and hospitality sectors. As NZFD does not supply these products and services, they are not considered further in this application. Further information about this company can be found at <https://www.placard.com.au/index.php>; and
- (c) Pacific Doors. Assa Abloy NZ acquired Pacific Doors in 2018. It is a specialist door business, manufacturing and supplying high-performance door and window systems for fire, acoustic, security, hospital, mental health, ballistic and commercial purposes. It has manufacturing facilities in Wellington and Timaru and supplies products to New Zealand and the Pacific islands. Pacific Doors' main distribution channel is direct sales to construction companies for major projects. Further information about Pacific Doors can be found at www.pacificdoors.co.nz.

- 4.6 Pacific Doors is the relevant Assa Abloy Group entity for the purposes of assessing the competitive effects of the Proposed Transaction. Accordingly, the focus of this application is on the Pacific Doors' business.
- 4.7 We provide at Confidential Annexure 5 a copy of Pacific Doors' most recent annual report, financial statements and management accounts. NZFD's most recent annual report is at Confidential Annexure 10.
- 4.8 We also provide together with this application confidential documents prepared for Assa Abloy's senior management relating to the Proposed Transaction. [].

The other party – NZFD

- 4.9 NZFD is a manufacturer and supplier of fire-rated and non-fire-rated doors and windows, with a particular focus on the manufacture and supply of fire-rated doors for high-density apartment buildings, hotels and retirement living. Its product portfolio includes non-fire-rated, fire-rated, acoustic and speciality door and window systems.
- 4.10 NZFD's manufacturing facility is located in Auckland, New Zealand. Its main distribution channels are direct sales to major construction companies, joiners and resellers.
- 4.11 Further information about NZFD can be found at <https://www.nzfiredoors.co.nz/>

Horizontal overlap between the parties

- 4.12 While both parties supply a range of fire-rated and smoke control door and window products, the only relevant area of overlap between Assa Abloy NZ and NZFD is in relation to the supply of 30-minute and 60-minute fire doors and windows.²
- 4.13 However, the parties' products are differentiated, and they predominantly supply their products to different customer segments. NZFD supplies low-cost, low-specification fire-rated doors and windows predominantly for residential apartments, hotels and retirement homes while Assa Abloy NZ supplies higher-cost, higher-specification fire-rated doors

² "Fire doors" includes smoke control doors which do not have a fire resistance rating.

and windows through its subsidiary, Pacific Doors, predominantly for large commercial or institutional premises, such as hospitals and prisons.

- 4.14 A list of the smoke control and fire-rated door and window products supplied by each of the parties is in Annexures 1 and 2. A table showing the general categories of fire-rated doors and windows supplied by the parties is in Annexure 3.
- 4.15 There is also some overlap between the parties in relation to the supply of interior X-Ray shielding doors but this is de minimis.
- 4.16 Both parties also supply other non-fire-rated doors for a variety of different applications. This is a market with many participants and low barriers to entry and therefore it is also not considered further in this application.
- 4.17 The competitive overlap is discussed in further detail in section 6 of this application.

5. INDUSTRY CONTEXT AND RELEVANT MARKETS

Industry overview

- 5.1 Fire-rated doors and windows are part of what is referred to as “*Passive Fire Protection*”, being systems which are part of the built system of a building that are available and effective at all times. Passive fire protection provides breaks and barriers to fire and the spread of combustible products within buildings, between buildings and to the exterior environment.
- 5.2 Fire separation barriers, such as fire walls and fire-rated doors, are a major aspect of passive fire protection. Fire-rated doors form part of the separation of buildings into fire cells. Most of the time they act the same as any ordinary door. When a fire occurs however, they perform a vital and specific task by burning at a specific rate and providing a barrier to hold back the fire from other areas.
- 5.3 A fire-rated door is an entire system of components that interact together to perform as a total unit. A fire-rated door set consists of a door leaf,³ door frame, and hardware (i.e. closers, handles, locks, vision panels and air grilles) that are all appropriate to the door’s fire rating.
- 5.4 A fire-rated window is also a system of components that interact together to perform as a complete unit. A fire window unit is made up of the fire-rated glass, frame, and seals that are all appropriate to the window’s fire rating.

Fire Door Certification

- 5.5 The New Zealand Building Code requires that all fire-rated door sets be identical to prototypes that have been fire tested to the New Zealand Standards.
- 5.6 The relevant New Zealand Standard is *NZS 4520 Fire-resistant door sets*. It requires fire-rated doors to be certified following installation. The certification documentation requires a statement from the certifier that the doors have been manufactured as per a prototype which has been tested to AS1530.4. AS1530.4 is an Australian Standard which sets out the test procedures and criteria for the determination of fire-resistance of

³ The door leaf is the part of a door that swings open and shut.

elements of building construction. The certification documentation requires reference to the components of the fire-rated door set and the relevant fire test report.

- 5.7 Testing is conducted on the complete door system (door leaf, frame, hardware and wall system) to AS1530.4. From the results of the test, a fire resistance level or fire resistance rating (**FRR**) is determined.
- 5.8 There are two certified test laboratories in New Zealand and two laboratories in Australia capable of doing full scale testing in accordance with AS1530.4.⁴

Fire Resistance Rating

- 5.9 The FRR achieved by a door or window set in a test is expressed in minutes for which the system fulfils each of three criteria. These are:
- (a) **Structural Adequacy:** the ability to maintain stability and adequate loadbearing capacity as determined by AS1530.4. This rating will always be zero for a door because they are not considered a load bearing element and is expressed as a dash;
 - (b) **Integrity:** the ability to resist the passage of flames and hot gases as specified in 1530.4; and
 - (c) **Insulation:** the ability to maintain a temperature on the surface not exposed to the furnace below the limits specified in AS1530.4.

Fire-rated doors

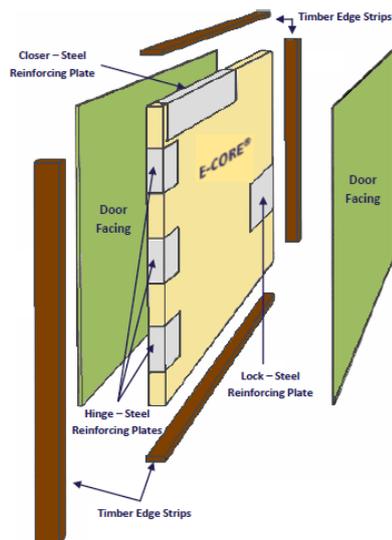
- 5.10 As explained earlier, a fire-rated door is made up of a system of components: a door leaf, door frame, seals and hardware.

The door leaf

- 5.11 A fire-rated door leaf may comprise a fire core, a door facing and any other required door finishings (such as edge strips, vision panels, decorative veneers and seals)). The diagram below shows a typical E-Core⁵ fire door leaf:

⁴ Branz and Pfits in New Zealand. CSIRO and Exova in Australia.

⁵ An E-Core core is made from vermiculite mineral. E-CORE® is a registered trademark of E + Building Products Pty Ltd.



- 5.12 A fire-rated door leaf may also be made from a solid material which has fire resistant properties, which removes the need for a separate fire core.
- 5.13 There are a large number of different core types or materials that can be used for the manufacture of fire doors.⁶ Some core types and materials are more suitable for lower fire ratings, while others are more suited to higher fire ratings and specialist applications. Examples of the different core types available globally and in New Zealand, and their characteristics are set out in table 1 below.

Table 1: Types of core used globally in fire-rated door sets

Core type	Major suppliers	NZ suppliers who use this core type	Features / Benefits	Other comments
MGO (magnesium oxide) board	Triple Lite Incorporated Suparnar	None	Readily available, cheap, performs well in fire. Can be used for up to 240min FRR doors.	Currently used extensively in China and could be used in New Zealand, although Assa Abloy NZ is not aware of anyone currently using it for fire doors in this market.
Vermiculite mineral	Fire Core E-Core Skamol Hebei Leijie Trade Co., Ltd. Zibo Yaohua Imp. & Exp. Co., Ltd.	NZFD and Hallmark use vermiculate mineral cores in some of their doors	Performs well. One core fits all applications (ie 15 min to 240 min). It is a mono-core which means that it comes in the thickness required to make the fire-rated door, which saves some time and cost.	There are a large number of suppliers of vermiculite mineral core globally. These are just some examples. Vermiculite mineral is very similar to mineral fibre board (except mineral fibre board is not a mono-core) in terms of application.

⁶ Core types or materials have inherent fire-resistant properties which may be combined with fire retardant chemicals to achieve the fire resistant properties needed to meet specific fire ratings.

Core type	Major suppliers	NZ suppliers who use this core type	door who use this core type	Features / Benefits	Other comments
	<p>Shijiazhuang Haogesi Trade Co., Ltd.</p> <p>Shijiazhuang Ningshu Trading Co., Ltd.</p> <p>G AND N FORTUNE LIMITED</p>				Both E-Core and Fire Core can and do readily supply to the New Zealand market.
Flax Board	<p>Pyropanel</p> <p>Sanopan</p>	Best Doors and Pacific Doors use Pyropanel flax board cores in some of their doors		<p>Readily available, cheap, suits 30 min to 60 min fire-rated door sets</p> <p>Door manufacturers like using it.</p> <p>Looks like particle board. It is cheaper and easier to manufacture than vermiculite mineral or mineral fibre board because it is more stable. Vermiculite mineral or mineral fibre board are quite fragile.</p>	<p>Used in the UK for 30 minute doors only, but Pyropanel has improved its performance with glue and processing so it is suitable for up to 60 min FRR doors.</p> <p>Flax Board is limited in terms of the sizes and additional features than can be produced.</p> <p>Flax Board also does not come in the required thickness to produce a fire-rated door, and therefore panels need to be glued together to make the core which increases labour costs.</p>
Calcium Silicate Board		Pacific Doors use this type of core in its acoustic fire doors.		Performs well in fire Globally available from both European suppliers (Promat) and from Chinese suppliers. It is very similar to MGO board.	<p>Used in many countries, particularly China, as door core and walling systems.</p> <p>Calcium Silicate Board is generally used together with other products to make a core. It comes as a very thin sheet which is used to protect other materials in the core of specialised doors, such as acoustic fire-rated doors.</p>
Mineral fibre board	<p>Pyropanel (the two and four hour door cores use this material)</p> <p>Odenwald Faserplattenwerk</p>	Best Doors and Pacific Doors use this type of core in some of their doors		<p>Performs well</p> <p>Can laminate.</p> <p>It can be used for a wide range of sizes and allows for a wide range of features.</p> <p>One core fits all applications (ie 15 min to 240 min).</p>	It does not come in the required thickness to produce a fire-rated door, and therefore panels need to be glued together to make the core which increases labour costs.

Core type	Major suppliers	NZ suppliers who use this core type	door who core	Features / Benefits	Other comments
Rockwool insulation	Hardware suppliers	Pacific Doors, in its secure steel fire-rated doors		Readily available from hardware suppliers Global product Can cut and compress	It is not a solid core but is a fire-resistant filler which works well in steel doors. It is similar to a pink batt: it has both fire-resistant and insulation properties. It is used extensively in USA other parts of the world.
Particleboard	There are a large number of suppliers of particleboard in New Zealand.	Used by a large number of suppliers in New Zealand, including Best Doors, Hallmark and Pacific Doors		Basic product. Available off the shelf from many suppliers. Widely available in New Zealand. Suitable for 30 min FRR doors only	Very limited in terms of the size of the door that can be produced and the features that the door can have.

- 5.14 Other materials used in fire-rated door leaves in New Zealand include laminated veneer lumber (known as LVL), reconstituted wood fibre (called Triboard) and glazed steel. LVL and Triboard are made from wood-based products which have been chemically adjusted to achieve the required fire-resistant qualities. They can be used for fire doors with an FRR up to 60-minutes. NZFD and Mattsons supply fire-rated doors made from LVL or Triboard.

Door hardware and seals

- 5.15 Door hardware is the name given to all other components of a door. It includes door closers, locks, latches, door handles, eye viewers, magnetic clamps, hinges, hold open devices, panic exit devices, seals and grilles.
- 5.16 There are a large number of suppliers of door hardware for use on fire-rated doors in New Zealand including Assa Abloy NZ, Allegion, Dormakaba, GEZE, Gainsborough, Ryobi and Schlage. All of these suppliers supply door hardware to the New Zealand market. Assa Abloy, Domakaba and Allegion are the three largest suppliers of door hardware in New Zealand.
- 5.17 Allegion is a global supplier of door hardware, including residential and commercial locks, door closers and exit devices, steel doors and frames. It has more than 11,000 employees globally and supplies to 130 countries. It is the largest supplier of commercial door hardware in New Zealand.
- 5.18 Dormakaba is a global supplier of door hardware, entrance systems, electronic access & data, mechanical key systems, safe locks and interior glass systems. It has 15,000 employees worldwide and supplies to 130 countries. It is one of the largest suppliers of automatic door systems in New Zealand.
- 5.19 All door hardware is imported into New Zealand.

NZFD's fire-door products

- 5.20 NZFD's 30-minute and 60-minute fire-rated doors are made using either Triboard, which it sources from the [], or LVL. Its 90-minute plus fire-rated doors are made using a vermiculate mineral core, which NZFD sources from Australia.
- 5.21 NZFD's Triboard doors are its most commonly supplied fire door product. It is a low-cost product because it is very quick and easy to make. It is supplied in a sheet form [].
- 5.22 Below are pictures of two of NZFD's low-cost fire doors:



- 5.23 A Triboard fire door is the ideal door for apartments, hotels and retirement villages due to its low cost and basic construct. However, it has a number of limitations which make it unsuitable for more complex projects, such as for hospitals, prisons and other institutional buildings. For example, there are limitations relating to maximum height and width, vision panel types and sizes and decorative finishes that can be used.

Pacific Doors' fire-rated doors

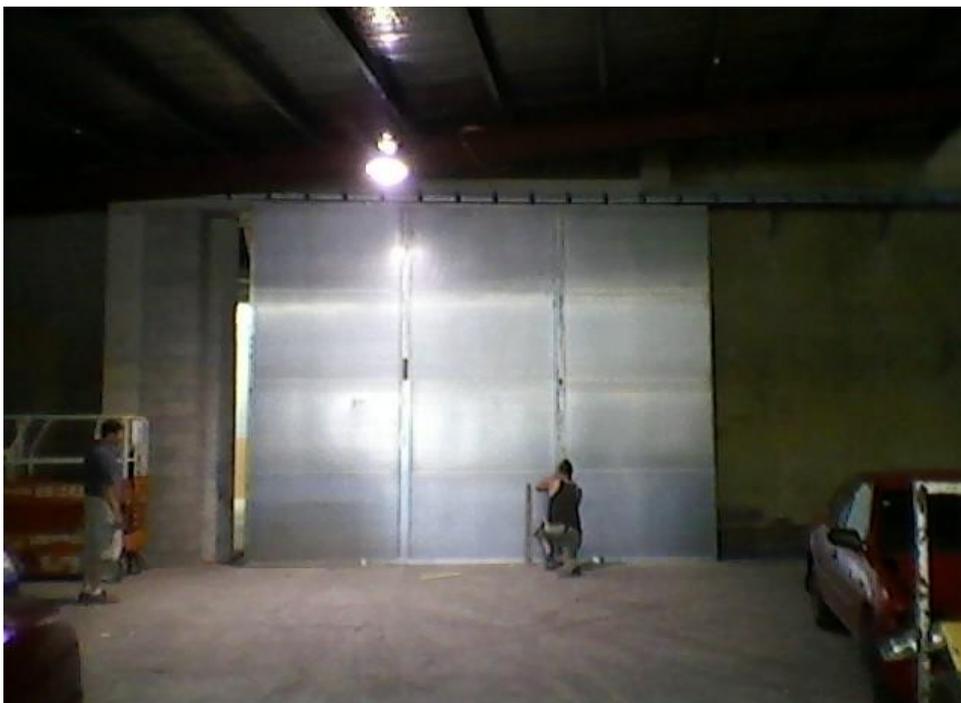
- 5.24 The majority of Pacific Doors' fire-rated doors are made using a Pyropanel core. Pyropanel is part of the Assa Abloy Group. As noted in table 1 above, Pacific Doors also uses other types of cores in some of its door products.
- 5.25 Producing a fire-rated door using a Pyropanel core (or any other type of core) is a more labour intensive and costly process than producing an LVL or Triboard fire-rated door. The process for making a Pyropanel core door is as follows:
- (a) []
 - (b) []
 - (c) []

(d) []

(e) []

5.26 []

5.27 Below are pictures of two of Pacific Doors' doors, which were made using a Pyropanel core.



5.28 Producing a fire door using a core, such as Pyropanel, provides greater flexibility in the design of the door than a Triboard- or LVL-based door would allow. This makes these

doors more suitable for projects that require doors with unique features or sizes, or where other characteristics are required in addition to the fire rating, such as security, hygiene and acoustics.

- 5.29 Pacific Doors does not currently produce any fire-rated doors using LVL, Triboard or similar low-cost material and does not currently have the technical expertise to produce a similar low-cost fire-rated door. It would need to invest in this expertise and then undertake research and development to produce its own chemically-adjusted wood-based material which can be used to produce fire-rated doors. Once a suitable material has been developed and a door produced from it, the door then needs to be tested for compliance with the Standards. The testing process takes time for a new product because all permutations of the door (i.e. in terms of the types of hardware, door frames, edge strips and any other finishings used) need to be separately tested for compliance with the Standards. Assa Abloy NZ estimates that it could take more than 12 months to produce an appropriate base material, and several years to develop a full range of fully compliant fire-rated doors using that material.

Fire windows

- 5.30 A fire window is made up of fire-resistant glass, a frame and seals. Window frames may be made of timber or steel.
- 5.31 Fire-resistant glass is tempered glass manufactured in various shapes and sizes used to retain and direct heat from a fire. Fire-resistant glazings can be categorised into non-insulating and insulating units. There are many brands of fire-resistant glass used in New Zealand and supplied by different glass manufacturers, including Pyranova, Pyroshield, Firelite, Pyroswiss, Securiflam, Pyrostop, Swissflam, Pyrobel, Promglas and Contraflam.
- 5.32 NZFD has an exclusive arrangement with Schott AG to process Pyranova insulating glass in Australasia. NZFD also supplies Schott's Radiation Shielding Glass.
- 5.33 Pacific Doors uses a range of fire-resistant glass brands in its window sets which it acquires from third parties, including Firelite, Pyroceram, Georgian Wired, Schott Pyran and Pyrobel.
- 5.34 Unlike a fire-rated door, the process of producing and testing a fire-rated window set is relatively simple. Once a manufacturer has obtained the fire-resistant glass from one of the many producers who supply to the New Zealand market, all that is required is for the manufacturer to add either a steel or wooden frame. With one successful fire test a manufacturer could start supplying a large range of fire-rated window sets to the market. Producing and testing a fire-rated door is a much more complicated process because doors have gaps, such as clearance gap between the door leaf and the frame or floor, key-holes and vision panels, whereas windows do not. There are also a large number of options and variables for doors (singles, pairs, double action, over height, different hardware brands, different frame profiles, etc) so a manufacturer is required to complete numerous different successful fire tests to have a large enough range to supply the market.

Sales channels

- 5.35 Generally, door companies supply their products directly to the customer (in the case of commercial supply, this is the construction company).

- 5.36 Door hardware is generally supplied by hardware companies to hardware distributors, who then resell them to construction companies, door companies or direct to consumers.
- 5.37 Fire-rated doors are usually supplied to customers without the required door hardware, although door suppliers may supply the fire-rated door together with the required hardware if the hardware is integral to the door (for example, a security fire-rated door with multi-point locking systems must have the hardware fitted during the manufacturing process), or it is required by the customer, such as where the customer is a small builder who only wishes to deal with a single supplier. Only about [] of Pacific Doors' door sales include the required door hardware.
- 5.38 Fire door hardware must be installed by an experienced installer to ensure that it is fitted correctly and in accordance with the fire-rating standards and certification. These installation services are usually supplied by distributors. None of Assa Abloy NZ, Pacific Doors and NZFD supply hardware installation services. Instead, for projects requiring the supply of fire door hardware, Pacific Doors and NZFD outsource these services to an experienced installer.

Capacity in the market

- 5.39 Assa Abloy NZ is not aware of any capacity constraints in relation to the supply of fire-rated doors and windows in New Zealand. Pacific Doors' manufacturing facilities are currently operating []. []. There are fluctuations in capacity utilisation depending on the timing of the projects it is supplying. []. The process of manufacturing a door, once a core or fire-retardant material has been developed or selected and you have the required machinery, is not particularly complex. Additional staff or shifts could easily be added as no qualifications or special skills are required.

Relevant markets

- 5.40 The Commission has not previously considered markets for the supply of fire-rated doors and windows, although related markets, namely markets relating to the supply of fire cores and door hardware, have been considered in the merger context by the Australian Competition and Consumer Commission (**ACCC**).⁷
- 5.41 Pacific Doors and NZFD both provide commercial doors and windows. The main area of overlap between them is in the supply of fire doors and windows. While it is arguable the parties operate in different markets, given their different customer class, the differentiation of their products and their product price differential, for the purposes of this application, Assa Abloy NZ has considered the Proposed Transaction in terms of a national market for the supply of fire-rated door and window sets (**fire door market**).
- 5.42 This market corresponds to the main area of overlap between Assa Abloy NZ and NZFD and best isolates the competitive effects of the Proposed Transaction. While Assa Abloy NZ acknowledges that there could be separate markets for fire-rated doors and fire-rated windows because of the differences in the production processes for these products, Assa Abloy NZ considers that there is no material difference in the outcome of the competition assessment whether a single door and window market or separate markets are defined.

⁷ The ACCC gave preliminary views on the relevant markets in respect of Assa Abloy Australia Pacific Pty Ltd's proposed acquisition of E Plus Building Products Pty Ltd in 2019. See <https://www.accc.gov.au/public-registers/mergers-registers/public-informal-merger-reviews/dormakaba%E2%80%99s-proposed-acquisition-of-e-plus>

- 5.43 Assa Abloy NZ does not consider there to be any need to analyse markets involving the supply of specialist door products. As noted earlier, NZFD's supply of specialist doors is very small.

Product dimension

- 5.44 Assa Abloy NZ has considered the extent to which it is appropriate to define the market by reference to the different types of fire-rated doors and windows supplied in the market (for example, 30-minute fire-rated doors).
- 5.45 From the demand-side, there is limited scope for substitutability between the different types of doors and windows – for example, a hospital requiring a 240-minute fire-rated door for a specific purpose is unable to substitute a 30-minute fire-rated door for that purpose. However, construction projects often require the use of interior and exterior fire-rated doors of different types and ratings and therefore a package of fire-rated doors across several categories will be acquired for the project. Fire-rated windows are also normally scheduled and acquired together with fire-rated doors.
- 5.46 On the supply-side, all fire door suppliers supply a range of fire-rated doors and most fire door suppliers also supply fire-rated windows. On that basis, a narrower market definition is not appropriate.

Geographic dimension

- 5.47 The geographic scope of the relevant market is national, as fire-rated doors and windows are distributed on a national basis. For example, Pacific Doors supplies to projects throughout New Zealand from its manufacturing facilities in Timaru and Wellington. []. This cost is insignificant when considered in the context of the total cost of a fire-rated door. The cost of freight to various destinations around New Zealand is at Confidential Annexure 9.

Functional dimension

- 5.48 Both parties supply at the wholesale level and therefore this is the appropriate market dimension.

Competitors of Pacific Doors and NZFD

- 5.49 There are many suppliers of fire-rated doors and windows in New Zealand. Further information about the major suppliers is set out at Annexure 6.
- 5.50 A list of all trade or industry associations in which one or both of the parties to the Proposed Transaction participate is set out in Annexure 8.

Customers of Pacific Doors and NZFD

- 5.51 Both Pacific Doors and NZFD supply their products directly to construction companies. Pacific Doors focuses on specialist building projects, such as large commercial and institutional buildings (i.e. hospitals and prisons). NZFD focuses on apartment, hotel and aged living building projects. NZFD also supplies to resellers, including Doors'n'More, Total Door Systems and Huntly Door Systems.
- 5.52 The names and contact details for each party's key customers, and the revenue earned from each in the last financial year is at Confidential Annexure 7.

6. COMPETITION ASSESSMENT

6.1 The Proposed Transaction is unlikely to have the effect of substantially lessening competition in the fire door market or any related market in New Zealand because:

- (a) the parties are not close competitors. Pacific Doors' closest competitors are Hallmark and Best Doors, and NZFD's closest competitor is Mattsons. The merged entity would continue to face vigorous competition from these companies and many smaller operators;
- (b) the merged entity will continue to face the threat of entry from Australian suppliers such as Hume Doors & Timber (**Hume**);
- (c) construction companies possess significant countervailing power; and
- (d) the Proposed Transaction will not increase the ability or incentive of the merged entity to foreclose competition in any related market.

The parties are not close competitors

6.2 Pacific Doors and NZFD are not close competitors in the fire doors market. While both supply a range of fire-rated doors and windows, they specialise in different types of fire-rated doors and windows and supply to different end-use market segments:

- (a) Pacific Doors predominantly competes for high-end specialist building projects, such as large commercial and institutional buildings (i.e. hospitals and prisons). Pacific Doors' products are of a high specification, which makes them uncompetitive in the apartment and aged living market segments. It therefore does not compete for these projects. Pacific Doors considers its closest competitors to be Best Doors and Hallmark. The large majority of Pacific Doors' business is won through tender or competitive quote processes. [].
- (b) NZFD predominantly competes for the supply of apartment, hotel and aged living building projects. More than []% of NZFD's fire door sales are of its basic 30- and 60-minute fire-rated doors []. These are higher volume, low cost, basic fire-rated door products more suited to hotels, apartments and aged living buildings than large commercial and institutional buildings.⁸ NZFD's closest competitor is Mattsons. Mattsons has a similar low cost, basic, fire-rated door offering to NZFD's.
- (c) This differentiation is reflected in the average unit costs of each parties' door products. Table 3 below sets out the parties' total fire-rated door revenues and volumes for the last three financial years and the average unit cost of their fire-rated door products.⁹ [].

Table 3: The parties fire-rated door product revenues, volumes and average unit cost

⁸ However, it should be noted that, while institutional building projects such as a hospital require predominantly specialised doors, the project will invariably require some basic 30- 60-minute fire doors to be installed.

⁹ Pacific Doors' financial reporting systems do not separate sales revenues or volumes by product type (e.g. VP60) or fire-rating category (e.g. 60-minute fire doors) and therefore it is not able to provide this information.

2020 Financial Year					
Parties	Total Doors Sales Revenue	Fire Sales	Total Fire Door Volume	Average cost	unit
NZFD	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]

2019 Financial Year					
Parties	Total Doors Sales Revenue	Fire Sales	Total Fire Door Volume	Average cost	unit
NZFD	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]

2018 Financial Year					
Parties	Total Doors Sales Revenue	Fire Sales	Total Fire Door Volume	Average cost	unit
NZFD	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]

- (d) Table 4 below sets out the parties' total fire-rated window revenues and volumes for the last three financial years. [] because, included in Pacific Doors' figures are large windows for commercial and industrial buildings which have a much higher per unit cost than a traditional window in an apartment or smaller office building.

Table 4: The parties fire-rated window product revenues, volumes and average unit cost

2020 Financial Year						
Parties	Total Windows Sales Revenue	Fire	Total Window Volume	Fire	Average cost	unit
NZFD	[]	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]	[]

2019 Financial Year						
Parties	Total Windows Sales Revenue	Fire	Total Window Volume	Fire	Average cost	unit
NZFD	[]	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]	[]

2018 Financial Year						
Parties	Total Windows Sales Revenue	Fire	Total Window Volume	Fire	Average cost	unit
NZFD	[]	[]	[]	[]	[]	[]
Pacific Doors	[]	[]	[]	[]	[]	[]

Existing competitors will continue to provide vigorous competitive constraint

6.3 Assa Abloy NZ's estimates of market shares for the fire door market are set out in Table 4 below. There is no independent share data available for this market and therefore these represent management's best guess based on their market experience and knowledge.

Table 5: Estimated fire door market shares 2020¹⁰

Supplier	Types of fire doors and windows supplied ¹¹	Estimated Fire Doors Turnover FY20 ¹²	Estimated Market Share by turnover FY20	Estimated Volume of Fire Doors FY20	Estimated Market Share by volume FY20
NZFD	Low-cost, low-specification 30min and 60min FRR doors made from Triboard or LVL.				
	90-240min FRR doors made with a vermiculate mineral core.	[]	[]	[]	[]
	Timber framed fire-rated windows				
	NZFD supplies predominantly to the apartment, hotel and retirement villages segments				
Best Doors	30-240min FRR and smoke control doors made with a	[]	[]	[]	[]

¹⁰ The revenues and volumes include both fire-rated doors and windows. Assa Abloy NZ is unable to estimate with any certainty other suppliers' revenues and volumes for individual product types or separately for fire-rated doors and windows. Further, separating out the market shares by fire-rating, for example, would not be meaningful given the range of door products supplied. Given the low volumes of fire-rated windows supplied by the parties to the Proposed Transaction, the market shares are unlikely to change substantially if fire-rated windows are removed from the turnover and volume figures.

¹¹ Further information about the operations of each of the other suppliers in the fire doors market is set out in Annexure 6.

¹² The estimated turnover figures include all sales of fire-rated doors and windows. It does not include sales of any non-fire-rated products. Assa Abloy NZ is not able to provide a further breakdown of turnover by residential and commercial customers. Pacific Door's financial reporting systems do not separate sales by customer or project type and management does not have any visibility over the sales of its competitors. In any event, fire-rated doors and windows are not typically supplied to residential customers because the Building Code does not require standalone houses in New Zealand to have fire-rated entryways. However, the Building Code may require the use of a fire-rated door in a residential building in some limited circumstances, such as where multiple dwellings are adjoined on a single title.

Supplier	Types of fire doors and windows supplied ¹¹	Estimated Fire Doors Turnover FY20 ¹²	Estimated Market Share by turnover FY20	Estimated Volume of Fire Doors FY20	Estimated Market Share by volume FY20
	Pyropanel or solid particleboard (for 30 min only) core. Best Doors supplies predominantly to the commercial and high end residential segments.				
Hallmark	30-240 min FRR doors made with a solid particleboard (for 30 min only) or vermiculite core. Hallmark supplies predominantly to the large commercial and institutional segments. But does also supply the apartment markets. Timber and steel framed fire-rated windows	[]	[]	[]	[]
Pacific Doors	30-240min FRR and smoke control doors made with a Pyropanel core. Pacific Doors supplies predominantly to the large commercial and institutional segments. Timber and steel framed fire-rated windows	[]	[]	[]	[]
Mattsons	Low-cost, low-specification 30min and 60min FRR doors made from Triboard (or similar) supplied predominantly to the apartment, hotel and retirement villages segments Timber framed fire-rated windows	[]	[]	[]	[]
Doors'n'More	Low-cost, low-specification 30min and 60min FRR doors supplied predominantly to the apartment, hotel and retirement villages segments. Doors'n'More is a reseller of NZFD's Triboard doors.	[]	[]	[]	[]
McNaughton	15-60min FRR doors 30min FRR windows	[]	[]	[]	[]

Supplier	Types of fire doors and windows supplied ¹¹	Estimated Fire Doors Turnover FY20 ¹²	Estimated Market Share by turnover FY20	Estimated Volume of Fire Doors FY20	Estimated Market Share by volume FY20
Steelguard	30-120min FRR glazed steel doors and windows supplied predominantly to the large commercial and institutional segments	[]	[]	[]	[]
Crittall Arnold	30-120min FRR glazed steel doors and windows supplied to the commercial, apartment and high-end residential segments.	[]	[]	[]	[]
Southern Steel Windows	Up to 120min FRR glazed steel doors supplied predominantly to the large commercial and institutional segments. They also supply some apartments. Up to 120min steel-framed windows	[]	[]	[]	[]
Other imports) (incl	A range of fire-rated doors and windows, up to 240min FRR	[]	[]	[]	[]
Total		[]		[]	

Source: Assa Abloy NZ management estimate

- 6.4 The Proposed Transaction will combine the number one and number four market participants, resulting in a market share of circa [] by volume for the merged entity. A number of other suppliers, both large and small, will continue to compete in the market. Best Doors and Hallmark, which have shares [] by revenue respectively, will continue to provide a significant competitive constraint on the merged entity. As explained earlier, Best Doors and Hallmark are considered Pacific Doors' closest competitors and each of these entities are easily able to increase capacity¹³ and grow market share. Mattsons, with a share of [] by turnover, will also continue to provide a significant competitive constraint at the low-cost end of the market. If the merged entity attempted to increase prices or reduce the quality of its products, customers could easily switch to one of the many alternative suppliers.
- 6.5 While the Proposed Transaction will result in the merged entity holding the number one position in the market, the shares overstate the level of competitive tension between the parties to the Proposed Transaction given they are not each other's closest competitor in any of the end-use market segments. Further, the Proposed Transaction is within the Commission's concentration indicators¹⁴ which also supports Assa Abloy NZ's position that the proposed acquisition will not have the effect or likely effect of substantially lessening competition.

¹³ As explained earlier, manufacturing a fire-rated door using an existing core or fire-retardant material does not require complex processes or skills. It is therefore not difficult to increase capacity in response to an increase in demand.

¹⁴ Commerce Commission, Mergers and Acquisitions Guidelines, July 2019 at paragraph [12].

Low barriers to entry for Australian suppliers

- 6.6 The requirement for compliance with the New Zealand Standards for fire-rated door sets presents a barrier to entry to the New Zealand market and fire-rated door sets (on their own) cannot be readily imported from countries such as China without testing for compliance, or obtaining an opinion that the product complies, with the New Zealand Standards. Testing or obtaining such an opinion is not cost prohibitive but may present a disincentive for large global suppliers when considered together with the size of the New Zealand market.
- 6.7 However, both the Australian and New Zealand building codes require that testing complies with the same standard, ie AS1530.4, and therefore it is not difficult for an Australian supplier who has already obtained certification for their products in Australia to supply to the New Zealand market. This, together with the fact that trade between New Zealand and Australia is very common and known, means that there are very few risks associated with importing fire-rated doors from Australia. This may be compared to doors produced in other countries, such as in Asia, where risks include that the doors may not meet the New Zealand standards or quality requirements, there may be delays in shipments due to the greater distance that the product needs to travel and the difficulties in pursuing unreliable suppliers in some countries. For example, on the recent Rapid Deployment Project, Decmil (the project manager) imported pre-fabricated container cells from China with the security fire doors already fitted. However, the fire doors had not been tested to New Zealand standards and therefore Decmil had to replace them with security fire doors which had been tested to New Zealand standards.
- 6.8 There are a large number of suppliers of fire-rated door and window sets in Australia that could readily enter the New Zealand market in response to an increase in price. Hume is Assa Abloy NZ's largest competitor in Australia for the supply of fire-rated doors. Further information about Hume can be found at <https://www.humedoors.com.au/commercial>. Hume already has a presence in New Zealand selling non-fire-rated doors through its New Zealand business. It is Assa Abloy NZ's view that it would be relatively easy for Hume to expand its New Zealand offering to include fire-rated doors. The cost of freight between Australia and New Zealand is not significant in the context of the value of a fire-rated door¹⁵ and foreign exchange risks do not present a barrier to entry.¹⁶ Indeed, Assa Abloy NZ is aware from discussions with its customers that Hume already supplies fire-rated doors into New Zealand from time to time from its Australian business, although it is not able to provide any specific examples.
- 6.9 Pacific Doors has also imported/exported product from/to Australia. [].

Low barriers to entry for fire-rated windows

- 6.10 There are very low barriers to entry for the supply of fire-rated windows in New Zealand. As explained earlier, producing a fire-rated window is a relatively simple process: all that is required is fire-resistant glass and a wooden or steel frame. There are a large number of suppliers of fire-resistant glass in New Zealand. Producing a wooden or steel frame and fitting it to the fire-resistant glass so that it meets the testing standards is a straightforward and simple process. Producing a fire-rated door is more difficult: there

¹⁵ []

¹⁶ The NZD/AUD foreign exchange rates have been stable for many years. In any event, projects typically have set timeframes for delivery so it is possible to fix exchange rates. There are a large number of businesses involved in the construction industries in both Australia and New Zealand, which further demonstrates that foreign exchange risks do not present a barrier.

are more components and the number of openings in a door (such as keyholes, vision panels etc) means that it is more difficult to produce a door which meets the required testing standards.

Customers have countervailing power

- 6.11 Pacific Doors' primary customers in the fire door market are major construction companies. They are sophisticated buyers, and procurement is typically by competitive tender.
- 6.12 Construction companies have strong bargaining power and may use this power to prevent an increase in price or a decrease in quality. There are no barriers for a construction company to switch suppliers mid-contract, subject to notice requirements.
- 6.13 Post-transaction, construction companies will continue to wield a considerable degree of countervailing power and impose a significant competitive constraint on the merged entity. Many of these construction companies are large enough to, or at least credibly threaten to:
- (a) sponsor the expansion of a current competitor;
 - (b) sponsor entry into the New Zealand market; and/or
 - (c) import fire-rated doors and windows directly from overseas suppliers, particularly Australia.
- 6.14 As explained earlier, Assa Abloy NZ is aware that major construction companies already directly source fire-rated products from Australian suppliers. Construction companies can also source fire-rated products from other countries and conduct their own fire-rated door or window set testing or obtain the appropriate opinion in respect of compliance with New Zealand Standards, which is not prohibitive in cost.¹⁷
- 6.15 If the merged entity were to raise the price or lower the quality of its fire-rated doors or windows, customers would likely switch to one of the other suppliers in the market or to overseas an Australian supplier.

No ability or incentive to foreclose competition in any related markets

- 6.16 Assa Abloy NZ operates at various levels of the supply chain, including the supply of:
- (a) fire-rated door cores through its Pyropanel brand; and
 - (b) door and window hardware, including Lockwood, Abloy, Aperio, Yale, Trimec, Whitco and Interlock.
- 6.17 Post-transaction, the merged entity will not have an increased ability or incentive to foreclose competition in any other market in which Assa Abloy NZ competes.
- 6.18 NZFD currently sources its vermiculate mineral cores from Australia and door hardware from Allegion. While post-transaction it is likely that the merged entity will no longer

¹⁷ Assa Abloy NZ acknowledges that there is a higher degree of risk in sourcing fire-rated doors from countries other than Australia and New Zealand, however Assa Abloy NZ does not consider this risk would be prohibitive in circumstances where a substantial volume of fire-rated doors are required for a particular project or a construction company has multiple projects requiring similar fire-rated doors.

acquire fire-rated door cores from fire-rated door core suppliers or hardware from other suppliers, there are many other manufacturers remaining in the market who will continue to acquire from these suppliers. Further, consistent with Pacific Doors' experience, approximately []% of NZFD's fire-rated doors are sold together with hardware and []% are factory fitted with seals, meaning that, for the vast majority of doors supplied by NZFD, the acquisition of hardware is the decision of the customer.

- 6.19 NZFD currently sources the wood product used in its Triboard and LVL doors from local New Zealand suppliers. For example, the wood used in its Triboard product is sourced from []. Assa Abloy NZ intends to continue to source these products from NZFD's existing suppliers.

No coordinated effects

- 6.20 The Proposed Transaction does not result in any coordinated effects. It will not enhance the ability of the merged entity and its competitors to coordinate their behaviour, including because:
- (a) there is a high degree of product differentiation;
 - (b) the Proposed Transaction will not result in the removal of a particularly vigorous or effective competitor;
 - (c) there are a number of strong competitors in the market and pricing and volumes are not transparent;
 - (d) customers have a high degree of countervailing power and procure products through competitive tendering processes; and
 - (e) there are strong suppliers of fire-rated doors in Australia that could easily enter the New Zealand market if prices were to increase, thereby disrupting any potential for coordination.

7. CONFIDENTIALITY

- 7.1 Confidentiality is requested of the information in this notice that is highlighted in bold and contained in square brackets, and the information set out in the Confidential Annexures, on the basis that disclosure would be likely unreasonably to prejudice the commercial position of the parties providing the information.
- 7.2 The Applicant requests that it be notified if a request is made to the Commission under the Official Information Act 1982 for release of the information for which confidentiality has been claimed.
- 7.3 Confidential and public versions of this Notice have been provided to the Commission.

DECLARATION

I, Simon Ellis, have prepared, or supervised the preparation of, this notice seeking clearance.

To the best of my knowledge, I confirm that:

- a) all information specified by the Commission has been supplied;
- b) if information has not been supplied, reasons have been included as to why the information has not been supplied;
- c) all information known to me that is relevant to the consideration of this notice has been supplied; and
- d) all information supplied is correct as at the date of this notice.

I undertake to advise the Commission immediately of any material change in circumstances relating to the notice.

I understand that it is an offence under the Commerce Act to attempt to deceive or knowingly mislead the Commission in respect of any matter before the Commission, including in these documents.

I am a director of ASSA ABLOY New Zealand Limited and am duly authorised to submit this notice.

Name and title of person authorised to sign:



Simon Ellis
President – Pacific Region and Japan
ASSA ABLOY New Zealand Limited

26/3/21

Date

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ANNEXURE 1: PACIFIC DOORS' FIRE-RATED PRODUCTS

Fire-Rated Door Products

Product Category	Product Code	Door function	Door Description	Fire Resistance Rating Stability / Integrity / Insulation
Smoke	<u>Smoke Control</u>	Hinged	The Smoke Control door set is a solid core door set, 45mm thick with smoke seals to the head and jambs of the frame. This door set provides a barrier so that smoke cannot easily pass between rooms. An additional seal to the bottom of the door leaf can be added upon request.	-/-/sm
15 Minutes	<u>F15</u>	Hinged	The F15 Fire door set is a timber framed fire door that offers fire and smoke protection up to 15 minutes. Suitable for interior use only, it is a robust door set that is compliant with a range of hardware options.	-/15/15sm
30 Minutes	<u>F0.5</u>	Hinged	The F0.5 door set is available in timber or steel frame and is suitable for interior or exterior use. The solid nature of this door set lends itself to good acoustic performance and with the right acoustic seals it can be certified to STC 30 in addition to offering up to 30 minutes fire and smoke protection. The F0.5 has approval for large vision panels and is available with a range of hardware options.	-/30/30sm
30 Minutes	<u>VP30A</u>	Hinged	The VP30A fire door set has a limited size range and is suitable for interior use only. It is a more economic and limited version of the VP30 fire door set. The VP30A is available in timber or steel frame with a variety of leaf facing and hardware options.	-/30/30sm
30 Minutes	<u>VP30</u>	Hinged	The VP30 fire door set is suitable for interior and exterior use and is available in timber or steel frames. This door set offers the largest range of leaf facings, meeting stiles and hardware options within our range of 30 minute fire protection doors.	-/30/30sm
30 Minutes	<u>VP30HR</u>	Hinged	The VP30HR Heritage fire door set is designed to replicate traditional rail and stile timber door construction with the appearance of recessed flat or raised panels and timber bolection mouldings. Timber veneers are used to replicate clear finish timber rails and stiles. The VP30HR offers large glazing capabilities including sidelights and overlights.	-/30/30sm
30 Minutes	<u>VP30HR DA</u>	Double Action	The VP30HR-DA Heritage fire door set is designed to replicate a traditional rail and stile timber door in the same way as the VP30HR, however this door set is double action (double swing). Flush panel versions of this door set are also available.	-/30/30sm
30 Minutes	<u>VP30DA</u>	Double	The VP30DA is a pivoted double action	-/30/30sm

		Action	(double swing) fire door set that is hung in a steel frame. This door set offers a wide variety of leaf facings and glazing options.	
30 Minutes	<u>VP30-S</u>	Sliding	The VP30-S is a sliding fire door. The VP30-S is suited to interior commercial environments and is able to be manufactured in sizes up to 4m high x 3m wide. The door leaf can be either ply wood or steel faced. The VP30-S is activated by a counter weight system connected to either a fusible link or electromagnetic lock system.	-/30/30sm
60 Minutes	<u>FS60</u>	Sliding	The FS60 Fire-rated cavity sliding door set is suitable for interior use and is available in a steel frame. This door set is the only fire-rated cavity sliding door set available in the New Zealand market.	-/60/30sm
60 Minutes	<u>VP60A</u>	Hinged	The VP60A fire door set has a limited size range and is suitable for interior use only. It is a more economic and limited version of the VP60 fire door set. The VP60A is available in timber or steel frame with a variety of leaf facing and hardware options.	-/60/60sm
60 Minutes	<u>VP60</u>	Hinged	The VP60 fire door set is suitable for interior and exterior use and is available in timber or steel frames. This door set offers the largest range of leaf facings, meeting stiles and hardware options within our range of 60 minute fire protection doors.	-/60/60sm and -/60/30sm
60 Minutes	<u>VP60P</u>	Hinged	The VP60P fire door utilizes insulated glazing to allow large glazed areas either in the door leaf as a vision panel or as an attached sidelight. The VP60P is available with a variety of leaf facings, leaf edges and meeting stiles. The VP60P is available in timber or steel frame and is generally suitable to interior environments only.	-/60/30sm
60 Minutes	<u>VP60SE</u>	Hinged	The VP60SE Secure fire door offers 60 minute fire and smoke protection with a high level of security confidence. The door leaf is clad in steel sheet and all 4 edges are capped with steel. The door set comes hung in a steel frame and is suitable for interior or exterior use.	-/60/60sm
60 Minutes	<u>VP60HR</u>	Hinged	The VP60HR Heritage fire door set is designed to replicate traditional rail and stile timber door construction with the appearance of recessed flat or raised panels and timber bolection mouldings. Timber veneers are used to replicate clear finish timber rails and stiles. The VP60HR is available in a timber frame.	-/60/60sm
60 Minutes	<u>VP60DA</u>	Double Action	The VP60DA is a pivoted double action (double swing) fire door set that is hung in a steel frame. This door set offers a wide variety of leaf facings and glazing options.	-/60/60sm
60 Minutes	<u>VP60-S</u>	Sliding	The VP60-S is a sliding fire door. The VP60-S is suited to interior commercial environments and is able to be manufactured in sizes up to	-/60/60

			4m high x 3m wide. The door leaf can be either ply wood or steel faced. The VP60-S is activated by a counter weight system connected to either a fusible link or electromagnetic lock system.	
60 Minutes	<u>SPS1-FR</u>	Hinged	The Pacific SPS1-FR door set offers fire protection up to 60 minutes and is a detention or commercial security door fully encapsulated in steel, resistant to physical attack using hand tools, levers and heavy impacts from either face. The SPS1 includes features designed to increase impact resistance and durability in high-use situations. The SPS1 is suitable for interior and exterior use.	-/60/60 (sm)
60 Minutes	5TI	Hinged	The Pacific 5TI is a medium to high security interior door. It is resistant to physical attacks with hand tools and power tools from either face. The single leaf door set also has certified resistance to fire, ballistic attacks and explosive blasts. The door leaf is a solid core panel fully encapsulated in steel sheet with seam welded edges and hung in a steel frame.	-/60/60 (sm)
60 Minutes	PFP60	Hinged	The Forster Presto PFP60 fire door set is an uninsulated full glazed fire door system, that offers fire and smoke protection up to 60 minutes. The door can be either a single leaf or pair. Sidelights and overlights are available for this door set. The PFP60 is suitable for interior and exterior use.	-/60/-sm
60 Minutes	PFL60	Hinged	The Forster Fuego Light PFL60 fire door set offers fully glazed fire door system with an insulation rating. The door can be either a single leaf or pair. Sidelights and overlights are available for this door set. The PFL60 is suitable for interior and exterior use.	-/60/30sm
90 Minutes	<u>VP90</u>	Hinged	The VP90 fire door set offers fire and smoke protection for up to 90 minutes. The VP90 is available in a steel frame and is suitable for interior or exterior environments. Multiple leaf facings, frame profiles and fixing methods are available.	-/90/60sm and -/90/30sm
90 Minutes	<u>VP90-S</u>	Sliding	The VP90-S is a sliding fire door. The VP90-S is suited to interior commercial environments and is able to be manufactured in sizes up to 4m high x 3m wide. The door leaf can be either ply wood or steel faced. The VP90-S is activated by a counter weight system connected to either a fusible link or electromagnetic lock system.	-/90/60
90 Minutes	<u>SPS1-E</u>	Hinged	The Pacific SPS1-E door set is a reinforced detention or commercial security door fully encapsulated in steel. The SPS1-E specialises in resisting lever and battering ram attacks from either face. The SPS1-E is also able to provide fire protection up to 90 minutes.	-/90/60 (sm)
120 Minutes	<u>VP120</u>	Hinged	The VP120 fire door set offers fire and smoke protection for up to 2 hours. The VP120 is	-/120/60sm -/120/30sm

			available in a steel frame and is suitable for interior or exterior environments. Multiple leaf facings, frame profiles and fixing methods are available.	
120 Minutes	<u>VP120-S</u>	Sliding	The VP120-S is a sliding fire door. The VP120-S is suited to interior commercial environments and is able to be manufactured in sizes up to 4m high x 3m wide. The door leaf can be either ply wood or steel faced. The VP120-S is activated by a counter weight system connected to either a fusible link or electromagnetic lock system.	-/120/60
120 Minutes	<u>VP120DA</u>	Double Action	The VP120DA is a pivoted double action (double swing) fire door set that is hung in a steel frame. This door set offers a wide variety of leaf facings and is available as either a single door set or pair of doors.	-/120/60sm
120 Minutes	<u>5TE</u>	Hinged	The Pacific 5TE is a medium to high level security door set with tested resistance to forced entry, ballistic, blast, and fire threats. The side hung single leaf steel door is fitted with a Mottura multiple bolt locking system. The leaf is hung on fully mortised institutional hinges in a steel frame.	-/120/-sm
120 Minutes	<u>6ST</u>	Hinged	The Pacific 6ST is suitable for applications where very high levels of security are required. The Pacific 6ST is a high level security door set with tested resistance to forced entry, ballistic, blast, and fire threats. The side hung single leaf steel door is fitted with a Mottura multiple bolt locking system. The door leaf is hung on fully mortised institutional hinges in a steel frame.	-/120/-sm
120 Minutes	<u>Armashield-FR</u>	Hinged	The Pacific Armashield-FR door set is an all-steel security door set, hung in a steel frame which offers 2 hour fire protection. The door set is designed for resistance to attack to the outside (hinge) face.	-/120/-sm
120 Minutes	<u>Armashield-FR</u>	Hinged	The Pacific Armashield-FR door set is an all-steel security door set, hung in a steel frame which offers 2 hour fire protection. The door set is designed for resistance to attack to the outside (hinge) face.	-/120/-
180 Minutes	<u>VP180</u>	Hinged	The VP180 fire door set offers fire and smoke protection for up to 180 minutes. The VP180 is available in a steel frame and is suitable for interior or exterior environments. Multiple leaf facings, frame profiles and fixing methods are available.	-/180/60sm *
240 Minutes	<u>VP240</u>	Hinged	The VP240 fire door set offers fire and smoke protection for up to 4 hours. The VP240 is available in a steel frame and is suitable for interior or exterior environments. Multiple leaf facings, frame profiles and fixing methods are available.	-/240/60sm *
240 Minutes	<u>VP240-S</u>	Sliding	The VP240-S is a sliding fire door. The VP240-S is suited to interior commercial environments	-/240/120 and -/240/90

		and is able to be manufactured in sizes up to 5m high x 6m wide. The door leaf can be either ply wood or steel faced. The VP240-S is activated by a counter weight system connected to either a fusible link or electromagnetic lock system.	
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Fire-Rated Window Products

Product category	Product Code	Product Description	Fire Resistance Rating Stability / Integrity / Insulation
30 min	FW30-1	The FW30-1 fire window is a timber framed window system that utilizes uninsulated glazing. Multiple panes are available to an overall height of 2700mm high. The FW30-1 is available for some exterior sheltered purposes.	-/30/-
30 min	FW30-3	The FW30-3 glazing system includes a fully glazed single or pair hinged door hung in a timber frame, with adjacent non-opening (fixed) sidelights and/or overlights. The FW30-3 utilizes uninsulated glazing	-/30/-
30 min	FW30-4	The FW30-4 fire window is a single pane timber framed window with a maximum pane size of 1100mm high x 1200mm wide. The FW30-4 uses Firelite glazing and is an uninsulated fire window.	-/30/-
30 min	FW30-P	The FW30-P fire window is an insulated timber framed window that can be either a stand alone fire window, or attached to one of the VP30 series doors as a sidelight. The FW30-P offers large clear glazed areas and can be multiple panes high and/or wide	-/30/30
60 min	FW60	The FW60 fire window is an uninsulated window hung in a folded steel frame. The FW60 is available as either single or multiple panes. Each pane may be up to 1000mm high x 1000mm wide. The FW60 is intended for interior use only.	-/60/-
60 min	FW60-P	The FW60-P fire window is an insulated fire window that offers large pane sizes. Windows can be either single or multiple panes. The FW60-P is available in timber or steel frame, however size restrictions apply when using the steel frame.	-/60/30
120 min	FW120	The FW120 fire window is an uninsulated fire window in a steel frame. The window can be either single pane or multiple panes. The FW120 can also be attached to a door frame as a sidelight or overlight. The FW120 is intended for interior use only.	-/120/-

ANNEXURE 2: NZFD'S FIRE-RATED PRODUCTS

Fire-Rated Door Products

Product category	Product Code	Door function	Fire Resistance Rating Stability / Integrity / Insulation
Smoke control	I-NF-H	Various	-/-/-sm
30 min	1-30-H	Hung Door	-/30/30sm
30 min	1-30-D	Hung Double Action	-/30/30sm
30 min	E-30-H	Hinged	-/30/30sm
60 min	I-60-H	Hinged	-/60/30sm
60 min	I-60-D	Double Action	-/60/30sm
60 min	E-60-H	Hinged	-/60/30sm
90-120 min	I-90-H	Hinged	-/90-120/30sm
90-120 min	I-90-D	Double Action	-/90-120/30sm
90-240 min	E-90-H	Hinged	-/90,120, 180 or 240/30sm

Fire-Rated Window Products

Product category	Product Code	Product description	Fire Resistance Rating Stability / Integrity / Insulation
30 min	I-30-TW	Interior timber-framed 30-minute FRR windows, single glazed	-/30/30sm
60 min	I-60-TW	Interior timber-framed 60-minute FRR windows, single glazed	-/240- and -/120/120sm

ANNEXURE 3: PRODUCT OVERLAP

Fire-Rated Door Products

Product category	Fire resistance rating (Stability/Integrity /Insulation)	Door Function	Pacific Doors	NZFD
Smoke control	-/-/-sm		✓	✓
15 minutes	-/15/15sm	Hinged	✓	
30 minutes	-/30/30sm	Hinged	✓	✓
30 minutes	-/30/30sm	Double Action	✓	✓
30 minutes	-/30/30sm	Sliding	✓	
60 minutes	-/60/30sm	Sliding	✓	
60 minutes	-/60/60sm	Hinged	✓	✓
60 minutes	-/60/30sm	Hinged	✓	✓
60 minutes	-/60/60sm	Double Action	✓	✓
60 minutes	-/60/30sm	Double Action		✓
60 Minutes	-/60/60sm	Sliding	✓	
90 Minutes	-/90/60sm	Hinged	✓	
90 Minutes	-/90/30sm	Hinged	✓	✓
90 Minutes	-/90/60sm	Sliding	✓	
90 minutes	-/90/30sm	Double action		✓
120 Minutes	-/120/60sm	Hinged	✓	
120 Minutes	-/120/30sm	Hinged	✓	✓
120 Minutes	-/120/60sm	Sliding	✓	
120 Minutes	-/120/30sm	Double Action		✓
120 Minutes	-/120/60sm	Double Action	✓	
120 Minutes	-/120/-sm	Hinged	✓	
180 Minutes	-/180/30sm	Hinged		✓
180 Minutes	-/180/60sm	Hinged	✓	

240 Minutes	-/240/30sm	Hinged		✓
240 Minutes	-/240/60sm	Hinged	✓	
240 Minutes	-/240/120sm	Sliding	✓	
240 Minutes	-/240/90sm	Sliding	✓	
Speciality Doors ¹⁸	60-120 mins	Hinged	✓	

Fire-Rated Window Products

Product category	Fire resistance rating (Stability/Integrity /Insulation)	Pacific Doors	NZFD
30 minutes	-/30/-sm	✓	
30 minutes	-/30/30sm	✓	✓
60 minutes	-/60/-sm	✓	
60 minutes	-/60/30sm	✓	✓
60 minutes	-/60/60sm		✓
120 minutes	-/120/-sm	✓	
120 minutes	-/120/30sm	✓	
120 minutes	-/120/60sm	✓	
120 minutes	-/120/120sm	✓	

¹⁸ “Specialty Doors” includes fire-rated glazed, security or ballistic door products.

CONFIDENTIAL ANNEXURE 4: SHARE TRANSFER AGREEMENT

**CONFIDENTIAL ANNEXURE 5: PACIFIC DOORS' LATEST ANNUAL REPORT AND
FINANCIAL STATEMENTS**

ANNEXURE 6: SUPPLIERS OF FIRE-RATED DOORS AND WINDOWS

Competitor	Description	Contact details	Website
Hallmark	<p>Hallmark manufactures and supplies fire, acoustic, standard, and speciality doors.¹⁹</p> <p>Hallmark manufactures fire doors under two brand names, “<i>Futura</i>” and “<i>Europa</i>”.</p> <p>(a) “<i>Futura</i>” doors have a solid particleboard core and are limited to -/30/30 and -/60/60 FRR only. The standard leaf thickness at 30min FRR is 45mm, and 60mm at 60min FRR. These doors can be hinged or double action / pivot. These doors are manufactured in New Zealand.</p> <p>(b) the “<i>EuroDoo</i>” product is manufactured in Germany to strict European standards. The “<i>Europa</i>” doors have a solid vermiculite core and is available in all ratings up to 240min FRR. The standard leaf thickness is 48mm at both 30min and 60min FRR.</p> <p>Hallmark also offers standalone fire windows in timber and steel.</p>	<p>Phone: 0800 846 237</p> <p>[]</p>	<p>https://www.hallmarkgroup.co.nz/</p>
Best Doors Limited	<p>Best Doors manufacture commercial and residential doors to order. Their range of doors includes fire, smoke and life safety, acoustic fire and special purpose doors.</p> <p>The doors are manufactured in Auckland by Best Doors Ltd, under licence from Pyropanel Developments (Pty) Ltd of Australia.</p>	<p>Phone: 09 633 0046</p> <p>[]</p>	<p>https://www.bestdoors.co.nz/</p>
Mattsons	<p>Mattsons is a privately-owned company based in Manukau, Auckland. Mattsons supply fire doors, fire windows, residential hollow core doors, commercial solid core doors, entrance doors, exterior timber joinery and stairs to the New Zealand market.</p> <p>Mattsons manufacture fire doors under the brand name “<i>Mattador</i>”. “<i>Mattador</i>” fire door leaves are made from Triboard, an FSC Certified reconstituted engineered wood product manufactured from renewable sources grown in New Zealand.²⁰ Its products include:</p> <p>(c) 55mm Triboard (-/60/60 FRR), clashed both vertical edges with 6mm hardwood timber;</p> <p>(d) 45mm Triboard (-/30/30 FRR), clashed both vertical edges with softwood timber; and</p>	<p>Phone: 09 277 7642</p> <p>Email: info@mattsonjoinery.co.nz</p>	<p>https://www.mattsonjoinery.co.nz/</p>

¹⁹ See <https://www.hallmarkgroup.co.nz/fire-doors>.

²⁰ See https://www.mattsonjoinery.co.nz/layout/MattsonJoineryMattadorOverviewNZ_Version9-July2014.pdf

	<p>(e) 45mm Triboard (-/45/45 FRR) to a maximum leaf size of 1980mm x 810mm; and</p> <p>(f) fire door leaves up to -/60/60 FRR pre-hung in approved steel frames.</p> <p>Mattsons supplies timber Fire Windows up to a 60 minute fire rating.</p> <p>The company purchases small volumes of steel frames from NZFD.</p>		
Doors'n'More	<p>Doors'n'More is a 100% New Zealand owned family business with a combined industry experience spanning more than 40 years. The company manufactures residential, fire and solid core doors. Doors'n'More manufacture 30-minute fire doors under the brand name "<i>Infernoguard</i>".</p> <p>Doors'n'More is also a reseller of NZFD's 60-minute fire doors.</p>	<p>Phone: 0508 966 378 Email: sales@doorsnmore.co.nz</p>	<p>http://doorsnmore.co.nz/</p>
McNaughton Windows and Doors	<p>McNaughton specialise in manufacturing timber windows and doors. The company has been operating in the New Zealand market for 80 years.</p> <p>McNaughton's manufacture a range of smoke stop Fire Doors (FYADOR) including, 15-minute, 30 minute and 60 minute rated options that can also be manufactured to include glass panels, sidelights and overlights.</p> <p>Doors can be manufactured to comply to ratings of:</p> <ul style="list-style-type: none"> - / - / - SM (Smoke Stop) - / 15 / 15 (15 Minute) - / 30 / 30 (30 Minute) - / 60 / 30 (60 Minute) <p>I McNaughton also produces a range of Fire Windows (FYAWINDOW) manufactured using hardwood timber. Fire Windows cater for fixed sashes only. The windows can be manufactured to comply to rating of -/30/30 (30 Minute) only.</p>	<p>Phone: 09 620 9059 Email: sales@mcnaughton.co.nz</p>	<p>https://www.mcnaughton.co.nz/about.</p>
Steelguard	<p>Steelguard manufactures and installs a full range of steel windows and doors; fire-rated, security, curtain wall and stainless steel.</p> <p>Steelguard are the Australasian agents for Vetrotech (who manufacture glazed fire and security doors) and Jansen AG (who develop and produce components for profile systems for windows, doors and facades). Both Vetrotech and Jansen are based in Switzerland.</p>	<p>Phone: 09 443 2722</p>	<p>http://www.steelguard.co.nz/</p>
Crittall Arnold	<p>Crittall Arnold specialises in the bespoke manufacture of steel glazed windows and doors, including fire doors and windows.</p>	<p>Phone: 09 296 5520 Email: sales@crittall.co.nz</p>	<p>http://crittall.co.nz</p>

Southern Steel Windows Limited	<p>Southern Steel Windows Limited is an Invercargill-based fabricator and manufacturer that specialises in the design, manufacture, and installation of architectural and commercial steel joinery, including fire-rated windows, fire doors, and security doors and windows.</p> <p>Southern Steel Windows manufacture and fit fire-rated window and door products across New Zealand. The company uses both the Hope's Suite and Wright Style Systems of fire-rated steel joinery and offers a wide range of sizes and styles up to -/120/- and -120/120 FRR.</p> <p>Southern Steel Windows manufacture fire-rated windows and glazed doors under the "Wrightstyle" brand name;</p> <p>(g) the "Wrightstyle 5050 Series Fire-Rated Windows and Doors" are integrity rated only (-/30/- to -/120/- FRR); and</p> <p>(h) the "Wrightstyle 6050-F1 Series Fire-Rated Windows and Doors" are integrity and insulation rated (-/30/30 to -/60/60 FRR).</p>	Phone: 03 218 9278	https://www.southernsteelwindows.co.nz/
Metalbilt	<p>Metalbilt supplies doors for all types of openings and a wide variety of applications. It has premises in Auckland, Wellington and Christchurch.</p> <p>Metalbilt supplies and installs fire shutters (with ratings up to -/240/- FRR in masonry and -/60/- FRR in modified plasterboard walls) and sliding fire doors (with ratings up to -/240/30 FRR).</p> <p>Metalbilt is owned by the ARA Group, which is a competitor of Assa Abloy's in Australia. ARA Group manufacture fire doors in Australia.</p>	Phone: 09 828 1167 []	http://www.metalbilt.co.nz/
AceDoors	<p>AceDoors manufacturers and supplies commercial doors for warehouses, factories, and industrial buildings.²¹ In 2010, AceDoors merged with Rudnev Door Systems who had been manufacturing and selling cool room doors for over nine years.</p> <p>AceDoors supply a range of door solutions that include products manufactured locally at its Auckland factory, and products imported from manufacturers in France, Germany, United Kingdom, United States, China and Taiwan.</p> <p>AceDoors manufacture sliding fire doors (typically used in warehouses and factories) with ratings up to -/240/120 FRR into concrete or masonry walls, with a maximum height of 5.0m and maximum door leaf</p>	Phone: 09 237 4970 Email: sales@acedoors.co.nz	https://www.acedoors.co.nz/

²¹ See <https://www.acedoors.co.nz/>.

	area of 30m ² .		
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CONFIDENTIAL ANNEXURE 7 – CUSTOMERS

Pacific Doors

Pacific Doors top 10 customers 2020			
Customer name	Contact details	Rev Incl Gst	% of total Sales
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]

NZFD

NZFD Key Customers 2020				
Customer name	Contact details	Rev Incl Gst	Type	% of total sales
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

ANNEXURE 8: TRADE AND INDUSTRY ASSOCIATIONS

1. Assa Abloy NZ is a member of the following trade and industry associations:
 - (a) Certified Builders;
 - (b) Windows and Glass Association New Zealand (**WAGANZ**);
 - (c) NZ made;
 - (d) Prefab NZ;
 - (e) Master Locksmith Association (**MLAA**); and
 - (f) New Zealand Institute of Architects (**NZIA**)
2. Pacific Doors is a member of the following trade and industry associations:
 - (a) Fire Protection Association of New Zealand (**FPANZ**)

CONFIDENTIAL ANNEXURE 9: FREIGHT COSTS

CONFIDENTIAL ANNEXURE 10: NZFD'S ANNUAL REPORT