REPORT SPONSOR: E PLUS BUILDING PRODUCTS PTY LTD

DOOR HARDWARE ASSESSMENT

Test standard: Section 2 and appendix B11 of AS 1530.4:2014
Product: McGrath ML Stafford Smart Lock with a dormakaba MS2902 mortice and McGrath Scar Plate, over a redundant 54 mm diameter cylindrical hole
Reference number: FRT251748
Test date: 12 July 2025
Revision: DHAR1.0

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1.0 Introduction

This report documents the findings of the assessment undertaken to determine the expected fire resistance level (FRL) of a lockset tested in accordance with section 2 and appendix B11 of AS 1530.4:2014[1] and assessed in accordance with AS 1905.1:2015[2].

Jensen Hughes performed this assessment at the request of the test sponsor listed in Table 1. Table 2 lists the hardware supplier.

Table 1 Test sponsor details

Test sponsor	Address
E Plus Building Products Pty Ltd	12-13 Dansu Court Hallam VIC 3803 Australia

Table 2 Hardware manufacturer details

Hardware manufacturer	Address
McGrath Locks Pty Ltd	Unit 4/36 Windorah St Stafford QLD 4053 Australia

[1] Standards Australia, 2014, Methods for fire tests on building materials, components and structures – Part 4: Fire-resistance tests for elements of construction, AS 1530.4:2014, Standards Australia, NSW.
[2] Standards Australia, 2015, Components for the protection of openings in fire-resistant walls Fire-resistant doorsets, AS 1905.1:2015, Standards Australia, NSW.

2.0 Variations considered in this report

The variations considered in this report are:

Fitting a McGrath ML Stafford Smart Lock with a dormakaba MS2902 mortice and McGrath Scar Plate installed over an unfilled redundant 54 mm diameter cylindrical lock hole instead of the corresponding hardware installed on the doorset in the referenced test reports listed in Table 3. Table 4 provides additional supporting information about the tested specimen.

Table 3 Referenced test reports

Test reference	Doorset description	Test standard
FSV 0608	Single leaf plywood faced E-core mini doorset, nominally 35 mm thick	AS 1530.4:1997
FSV 0609	Single leaf plywood faced E-core doorset, nominally 45 mm thick	AS 1530.4:1997

Table 4 Additional supporting information

Test report	Test date	Doorset description	Test duration	Test standard
FRT251748 R1.0	12 July 2025	Single leaf plywood E-core mini doorset, nominally 35 mm thick	120 minutes	AS 1530.4:2014

3.0 Description of the tested door hardware

Table 5 describes the tested door hardware. This information was provided by the test sponsor and the hardware was surveyed by Jensen Hughes.

Photographs of the test specimen are included in Figure 1 to Figure 5

All measurements were done by Jensen Hughes – unless indicated otherwise.

Table 5 Specimen description

Item	Description	
Door hardware product name	McGrath ML Stafford Smart Lock with a dormakaba MS2902 mortice and McGrath Scar Plate, over a redundant 54 mm diameter cylindrical hole	
Manufacturer/supplier	McGrath Locks Pty Ltd	
Latch material	Latch bolt	Stainless steel
	Cover plate	Stainless steel
	Retainer plate	Stainless steel
	Strike plate	Stainless steel
	Latch body material	Steel and stainless steel
Lock type	Mortice	
Lock details	Cut out	To fit the mortice body
	Mortice body	120 mm × 118 mm × 16 mm
	Cover plate	175 mm × 25 mm × 2 mm
	Strike plate	70 mm × 46 mm × 1.4 mm
	Retainer plate	175 mm × 25 mm × 2 mm
	Backset	95 mm
	Throw	15 mm
Furniture material	Body	Stainless steel, steel, rubber gasket, plastic, electronic parts, wiring and batteries.
	Lever	Aluminium Alloy
Furniture size	Body	260 mm × 45 mm × 22 mm
	Lever	133 mm × 22 mm × 20 mm
Scar plate	Size	296 mm × 68 mm × 2 mm
	Material	Stainless steel
Installation	An unfilled 54 mm diameter cylindrical hole was cut out in the door leaf as shown in Figure 4 to represent a pre-existing redundant hole. The scar plate was installed to cover the cut-out hole in the door leaf, such that the bottom of the scar plate was 125 mm from the bottom of the door leaf. The centre of the lockset spindle was located 240 mm from the bottom of the door leaf.	
Door leaf thickness	36 mm	

Figure 1 Unexposed side view of the tested hardware

Figure 2 Exposed side view of the tested hardware

Figure 3 Latch edge side view of the tested hardware

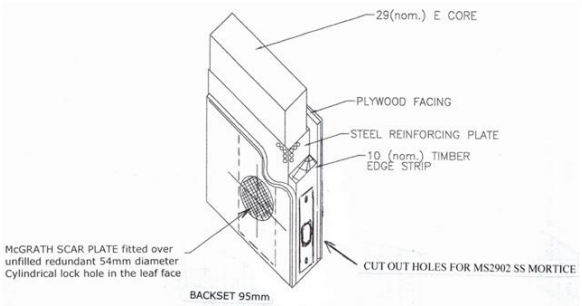


Figure 4 Planned Hole Cutout

Figure 5 Mortice pre-installation

4.0 Assessment

Section 4 of AS 1905.1:2015 requires some variations from tested prototypes to be subjected to a pilot scale test for assignment of FRL. As such, in addition to the full-scale tests listed in Table 3, a pilot scale test listed in Table 4 forms the basis of this assessment.

A pilot scale fire resistance test – in accordance with section 2 and Appendix B11 of AS 1530.4:2014 – was done on a pilot scale doorset under the test reference – FRT251748. It included a lockset fitted onto the door leaf.

AS 1530.4:2014 states that either sustained flaming on the surface of the unexposed face for 10 seconds or longer, ignition of a cotton pad, gap gauge failure or the latching mechanism being disengaged at the end of the test constitute integrity failure. During the test – FRT251748 – the lockset did not initiate failure of the doorset for the duration of the test.

As the proposed lockset did not cause failure in FRT251748, then substituting the proposed hardware for the hardware tested in the referenced doorset reports is not expected to affect their performance.

5.0 Conclusion

It is the opinion of Jensen Hughes' accredited fire testing laboratory in Australia that the proposed doorsets are expected to achieve the FRLs shown in Table 6 if fitted with the listed hardware.

This assessment report has been prepared in accordance with section 4.5 of AS 1905.1:2015 and is conditional on the operational characteristics and materials of the doorset complying with section 2 of AS 1905.1:2015. The field of application for the lockset is the same as the field of application for the doorset that the lockset is installed on.

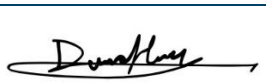
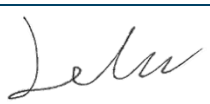
Table 6 Conclusion

Reference test and standard	Description	Assessed hardware	FRL*
FSV 0608 to AS 1530.4:1997	Single leaf plywood faced E-core mini doorset, nominally 35 mm thick	McGrath ML Stafford Smart Lock with a dormakaba MS2902 mortice and McGrath Scar Plate, over a redundant 54 mm diameter cylindrical hole.	**-/120/30**
FSV 0609 to AS 1530.4:1997	Single leaf plywood faced E-core doorset, nominally 45 mm thick		**-/120/30**
*FRL is only valid for the standard used for the reference test.			

Conditions and validity

- The conclusions of this assessment may be used to directly assess the fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all conditions.
- Because of the nature of fire resistance testing, and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy of the result. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.
- The assessment can therefore only relate to the actual prototype test specimens, testing conditions and methodology described in the supporting data, and does not imply any performance abilities of constructions of subsequent manufacture.
- This assessment is based on information and experience available at the time of preparing this report. The published procedures for the conduct of tests and the assessment of the test results are the subject of constant review and improvement and it is recommended that this report be reviewed by Jensen Hughes before the end of the validity date.
- The information in this report must not be used for the assessment of variations other than those stated in the conclusions above. The assessment is valid provided no modifications are made to the systems detailed in this report. All details of construction should be consistent with the requirements stated in the relevant test reports and all referenced documents.
- The data, methodologies, calculations and results documented in this report specifically relate to the tested specimen/s and must not be used for any other purpose. This report may only be reproduced in full. Extracts or abridgements must not be published without permission from Jensen Hughes.
- All work and services carried out by Jensen Hughes Fire Testing are subject to, and conducted in accordance with, our standard terms and conditions.

Quality management

Revision	Date	Revision description		
DHAR1.0	Issue: 25 Aug 2025	Initial issue		
		Prepared	**Reviewed**	**Authorised**
	Expiry date: 25 Aug 2030	David Hwang	Jaxsen Lee	Anthony Rosamilia
				

Jensen Hughes Fire Testing Pty Ltd
ABN 81 050 241 524
Formerly Warringtonfire Australia Pty Ltd[3]

[3] Warringtonfire Australia Pty Ltd was acquired by Jensen Hughes in December 2023. Jensen Hughes Fire Testing Pty Ltd is not affiliated, associated, authorised, or endorsed by Warringtonfire Australia Pty Ltd, Warringtonfire Testing and Certification Limited or its “Warringtonfire” or “Certifire” brands.

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