

Postal Address:  
 PO Box 4282  
 Dandenong South, Victoria 3164  
 Australia

Testing. Advising. Assuring.

**Door Hardware Assessment Report No. DHAR 29546900a.3 Page 1 of 4**

Test Sponsors	Issue Date
Austyle Architectural Hardware Pty Ltd 137-145 Chesterville Road Moorabbin, VIC 3190 and Pyropanel Developments Pty Ltd Unit 1, 97 Lewis Rd Wantirna South, VIC 3152	2/9/2014
	Validity Date
	30/09/2019

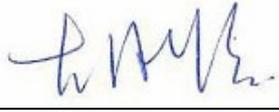
**The Fire Resistance Performance of Pyropanel Doorsets with nominated variation to the Door latchset, cylinder and lever**

**Variations Considered in this Report**

Fitting the following door latchsets, cylinders and lever handles in lieu of the door latches tested in the referenced tests:

**Table 1 – Austyle Mortise Latchsets**

<b>High Security Entrance Lock (47.6mm Centres):</b> <b>60mm Back set</b> 49300-Satin Chrome 49301-Satin Chrome	<b>Entrance Locks (85mm Centres):</b> 49200-Satin Chrome with 25mm backset 49201-Satin Chrome with 30mm backset	<b>Narrow Style self latching snib latch:</b> <b>30mm Back set</b> 49205-Satin Chrome
		

<b>TESTING AUTHORITY</b>	Exova Warringtonfire Aus Pty Ltd	
<b>Address</b>	PO Box 4282 DANDENONG SOUTH VIC 3164 Unit 2, 409-411 Hammond Road DANDENONG VIC 3175	
<b>Phone / Fax</b>	61 (0)3 9767 1000 / 61 (0)3 9767 1001	
<b>ABN</b>	81 050 241 524	
<b>Email / Home Page</b>	<a href="http://www.exova.com">www.exova.com</a>	
<b>Authorisation</b>	Prepared By:	Reviewed By:
		
	Keith Nicholls	Sherry Hu

Variations Considered in this Report (Cont'd)

Table 2 – Austyle Stainless Steel Lever Handles

43650-Satin Chrome	43654-Satin Chrome	43658-Satin Chrome
		

Referenced Test Reports

Test Report	Doorset Description	Test Standard
FR 1618	Pyropanel FR Doorset nominally 48mm thick	AS 1530.4-1990
FR 1645	Pyropanel FR Doorset nominally 48mm thick	AS 1530.4-1990

Additional Supporting Data

Test Reference	Doorset Description	Test Duration	Test Standard
EWFA 29546900	Maxi Pyropanel FR Door nominally 48mm thick.	241 minutes	AS 1530.4-2005

A pilot fire resistance test in accordance with Appendix B11 of AS 1530.4 2005 was conducted on a pilot doorset on the 13<sup>th</sup> of May 2014. It included an Austyle Entrance Latch 49301SC (with modified backset and face plate) Latchset system and Austyle 43650 door handle fitted to the door leaf.

Hardware Description

<b>Product Name(s) and manufacturer:</b>	Austyle Entrance Latch 49301 SC with 49201 Face Plate, Austyle 43650 lever. Manufacturer details held on confidential file.		
<b>Leaf Thickness</b>	48mm		
			
Austyle 43650 lever	Austyle Entrance Latch 49301SC (literature picture shown) with 49201 Face Plate		

**Discussion*****Tested Latchset and Lever handles***

It is expected that if a proposed lockset, cylinder or lever handle does not initiate failure of the pilot doorset before failure occurred on the referenced full sized doorsets, substituting the proposed door latchset, cylinder and door handle for those tested on the full-sized doorsets will not be detrimental to their performance.

AS 1530.4-2005 states that sustained flaming on the surface of the unexposed face for 10 seconds or longer constitutes integrity failure. During the referenced test EWFA 29546900 the Austyle Entrance Latch 49301SC with modified Face Plate 49201 and Austyle 43650 door handle did not initiate failure of the doorset before 240 minutes.

The tested lockset included a 60mm backset and face plate that was the longest for any of the proposed locksets.

During the referenced test EWFA 28275800 the Austyle 43689E/M door handle initiated failure of the doorset at 152 minutes of the test period.

Results from Pilot scale test EWFA 28275800 show that the Austyle 43689E/M door handle did not initiate an integrity failure on the doorset before 120 minutes.

***Austyle 49200, 49201 and 49205 series latchset***

The proposed Austyle 49200, 49201 and 49205 latchsets with nominal 25mm to 30mm backset are generally similar to the tested 49301SC latchset, being made from the same materials and using the same construction methods. The principle variations are the proposed latchsets are smaller and the backset of proposed latchsets are less than the 60mm backset as tested.

AS1530.4-2005 Clause 7.9.7(g) stipulates 'the backset of a mortice lockset or mortice latchset may be reduced.'

As Clause 7.9.7(g) is met and It is considered provided that reducing the latchset size will not require modification of the door leaf or doorframe and it is confirmed the functions of latchsets involving the operating mechanism are similar to the tested Austyle 49301SC latchset.

Based on the above, it is considered it is considered substituting proposed latchsets on the target doorsets are not likely to reduce the integrity performance of the doorset below for the test periods ad indicated below.

***Austyle 43654 and 43658 Lever Handles***

The proposed lever handles are generally similar to the Austyle 43650 door handle in test EWFA 29546900 and using the same construction method. The principle variation from the tested hardware is the lever shape and weight.

AS1530.4-2005 Clause 7.9.7(l) stipulates 'where locksets or latchsets are operated by a steel shaft, their surface-mounted furniture may be varied provided that –

- Any replacement handle or knob is not so massive or asymmetrical as to introduce a turning moment about the operating shaft which exceeds 0.07Nm.
- Any replacement lever handle is not so massive or asymmetrical as to increase the turning moment about the operating shaft by more than 10%.'

It is confirmed the tested Austyle 43650 door handle is heavier than and has similar lever length to the proposed Austyle 43654 and 43658 Lever Handles. It is therefore expected the turning moments of the proposed lever handles are less than that tested handle.

Based on the above, it is considered if the turning moment of the lever handle is less than or equal to the tested lever, the risk of the door unlatching during the test is not increased and the proposed handles are positively assessed.

### Conclusions

On the basis of the above discussion, it is the opinion of this laboratory that the doorsets listed below will achieve the FRL listed below if they are fitted with Austyle latchsets listed in Table 1 and Austyle lever handles listed in Table 2 on the doorsets as described in this assessment report.

This assessment has been prepared in accordance with Section 4.2 of AS 1905.1:2005 and is conditional upon the manufacturer confirming the operational characteristics and materials of the doorset comply with Section 2 of AS 1905.1:2005. The field of application of the door handle and latchset are defined by the field of application of the doorset the door handle and latchset are installed upon.

Test Ref	Description	FRL
FR 1645	Plywood faced Pyropanel FR Doorset nominally 48mm thick	-/240/30

### Conditions/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. 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 only 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 preparation. The published procedures for the conduct of tests and the assessment of test results are the subject of constant review and improvement and it is recommended that this report be reviewed by the validity date by Exova Warringtonfire Aus Pty. Ltd.

The information contained in this report shall 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.