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Sponsor(s)		
Fire & Security Hardware Pty. Ltd. Unit 7/30 Perry Street, Matraville, NSW, 2036	Pyropanel Developments Pty Ltd. Melba Industrial Park 122-124 Beresford Road Lilydale, VIC 3140, AUSTRALIA	

Issue Date	Validity Date	
24/11/08	30/11/13	

The Fire Resistance Performance of a Doorset with Nominated Variation

Variations Considered in this Report

Fitting a FSH MEM2400M and MEM1982M magnetic lock in addition to the hardware in the referenced test.

Referenced Test Reports		
Test Report	Doorset Description	Test Result
FR 1618	Single Leaf Pyropanel Doorset nominally 48mm thick and incorporates an FR core.	-/120/90
FR 1645	Two Leaf Pyropanel Doorset nominally 48 mm thick	-/120/90

Additional Supporting Data			
Test Report	Doorset Description	Test Duration	Test Standard
BWA No. 2209801	Single Leaf FR Pyropanel doorset nominally 38mm thick	121 minutes	AS 1530.4-2005

A pilot fire resistance test in accordance with Appendix B11 of AS 1530.4-2005 was conducted on a 38mm thick Pyropanel FR core doorset on 3rd October 2008. It included an FSH MEM2400M magnetic lock fitted to the door leaf at the top close to the latch edge.

When tested the additional magnetic lock did not initiate failure of the pilot doorset prior to 120 minutes duration. The lock was not the primary lock for the doorset and the magnet was not powered for the test.

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Hardware Description		
Product name(s) and manufacturer:	FSH MEM2400M and FSH MEM1982M magnetic lock Locks manufactured by Fire & Security Hardware Pty. Ltd. Unit 7/30 Perry Street, Matraville, NSW, 2036	
Materials	The MEM2400M and MEM1982M magnetic lock comprise and aluminium body and mild steel armature plate. The MEM 2400M body measured 158mm x 30mm x 30mm. The MEM 1982M body measured 128mm x 21mm x 25mm	
FSH MEM2400M	1 Magnetic Lock Fitted to Doorset in BWA 2209801 Size 158mm x 30mm x 30mm	
FSH MEM2400		
	Door frame	





Discussion

The proposed doorset is a 48mm thick Pyropanel FR core doorset as tested in FR1618 and FR 1645.

The proposed additional magnetic door locks are the MEM2400M and the MEM1982M being similar though smaller in size.

The proposed magnetic locks represent the same or less mass or less combustible materials than the tested MEM2400M magnetic lock.

The proposed doorset comprised a core nominally 10mm thicker than the doorset tested in BWA2209801.

It is expected if a tested hardware item does not initiate failure of the pilot doorset before the failure occurred on the reference doorsets, then addition of the proposed hardware will not be detrimental to the performance of the reference doorset.

Results from Pilot scale test BWA 2209801 has confirmed this expectation and the magnetic lock are positively assessed for the proposed period provided they are used in conjunction with an approved primary lockset

Conclusions

On the basis of the above discussion it is the opinion of this laboratory that the doorsets listed below would be likely to achieve the FRL listed below if they are fitted with a MEM2400M or MEM1982M in addition to the hardware tested provided they are used in conjunction with an approved primary lockset.

This assessment has been prepared in accordance with section 4.2 of AS 1905.1:2005 and is conditional upon the operational characteristics and materials of the doorset and complying with Section 2 of AS 1905.1:2005. The field of application of proposed hardware item is defined by the field of application of the tested doorset the hardware is installed upon.

Test Ref	Description	FRL
FR 1618	Single Leaf Pyropanel Doorset nominally 48mm thick and incorporates an FR core.	-/120/90
FR 1645	Two Leaf Pyropanel Doorset nominally 48 mm thick	-/120/90



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 Bodycote 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.



