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DHAR Test Assessment No. DHAR 49594800a.1 Page 1 of 4

Test Sponsors	Issue Date
LOCK & KEY Co Limited (Davcor Group P/L) Unit B1, 2-6 Greenhills Ave MOOREBANK, NSW, 2170 and E Plus Building Products Pty Ltd 85-89 Tulip Street Cheltenham VIC 3192	2/08/2017
	Validity Date
	2/08/2022

The Fire Resistance Performance of E+ Doorsets with the nominated variation to the Door lockset

Variations Considered in this Report

Fitting either a Carbine CEL-3IN1-SL8SN Electronic Lockset or a CARBINE CDL-SL8SS Electronic Lockset onto the door leaf in lieu of the door lockset tested in the referenced tests.



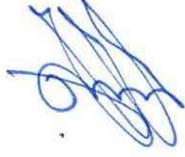
Referenced Test Reports

Test Report	Doorset Description	Test Standard
FSV 0608	Single leaf Plywood faced E-core mini Doorset nominally 35mm thick	AS 1530.4-1997
FSV 0609	Single leaf Plywood faced E-core Doorset nominally 45mm thick	AS 1530.4-1997
SI 2271	Two Leaf Plywood faced E-core Doorset nominally 45mm thick	AS 1530.4-1985

Additional Supporting Data

Test Reference	Doorset Description	Test Duration	Test Standard
EWFA 49594800	Single Leaf Plywood faced E-core Doorset nominally 35mm thick.	121 minutes	AS 1530.4-2014

A pilot scale fire resistance test in accordance with Appendix B11 of AS 1530.4-2014 was conducted on a pilot doorset on the 22 June 2017. It included a fitted onto the door leaf.

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Tested Hardware Description

	
Unexposed side	Exposed side
	
Latch Side	Strike Plate

Tested Hardware Description - Continued

Product name:

Tubular Latch

Door system properties:**Door leaf thickness:** 39mm**Backset :** 70mm**Lockset type:** Tubular Latch**Location:** 415mm from the centre of the lock to the bottom of the door leaf**Cut-out size for lockset:** To fit cyclinder**Turning Moment:** 0.56Nm**Function verification:****Opening force:**0.5N**Closing force:** 1.5N**Latching force:** 34.3N**50 opening and closing cycle:**

Completed prior to test

Average door gap clearance:

Top edge: 2.7mm

Latch edge: 2.9mm

Hinge edge: 3.0mm

Bottom edge: 1.8mm



Discussion

It is expected that if the proposed does not initiate failure of the pilot doorset before failure occurred on the referenced doorsets, then substituting the lockset in the referenced test with the proposed door lockset will not be detrimental to the performance of the referenced doorsets.

AS 1530.4-2014 states that sustained flaming on the surface of the unexposed face for 10 seconds or longer constitutes integrity failure. AS 1530.4-2014 also states that a latching mechanism ceasing to be engaged constitutes integrity failure. During the referenced test EWFA 49594800 the initiated failure of the doorset at 77 minutes.

Results from pilot scale test EWFA 49594800 show that the is positively assessed for the test periods as indicated below.

CARBINE CDL-SL8SS Electronic Lockset system

It has been confirmed by the report sponsor that the CARBINE CDL-SL8SS Electronic Lockset system is manufactured from the same materials, have the same operating mechanism design and similar construction as the .

AS1530.4-2014 Clauses 7.9.7 (i) and (j) stipulate:

(i) Changes may be made in the operating characteristics of latchset or lockset hardware, provided the changes do not require modification of the door leaf or door frame and changes to the functions of latchsets involving the operating mechanism.

(j) Changes may be made to the materials of the essential latching components, provided the melting point of any part is the same or higher.

The manufacturer of the CARBINE CDL-SL8SS Electronic Lockset system has confirmed in writing that in comparison to the Carbine CEL-3IN1-SL8SN Electronic Lockset:

- The changes made to the lockset do not require modification to the door leaf or frame nor do they change the function of the latch operating mechanism.
- The materials remain otherwise as tested or of higher melting point.

Based on the above and in absence of any foreseeable detrimental effects, it is considered that the proposed latchsets will achieve an integrity performance on the target doorset listed below.

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 either a or CARBINE CDL-SL8SS Electronic Lockset with 70mm backset on the doorsets as described in this assessment report.

This assessment has been prepared in accordance with Section 4.5 of AS 1905.1-2015 and is conditional upon the operational characteristics and materials of the doorset complying with Section 2 of AS 1905.1-2015. The field of application of the door lockset is defined by the field of application of the doorset the door lockset is installed upon.

Carbine CEL-3IN1-SL8SN Electronic Lockset

Test Ref	Description	FRL
FSV 0608	Single leaf Plywood faced E-core mini Doorset nominally 35mm thick	-/60/30
FSV 0609	Single leaf Plywood faced E-core Doorset nominally 45mm thick	-/60/30
SI 2271	Two Leaf Plywood faced E-core Doorset nominally 45mm thick	-/60/30

CARBINE CDL-SL8SS Electronic Lockset

Test Ref	Description	FRL
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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.