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EWFA Test Report No. DHAR 41218_closer.3 Page 1 of 3

Test Sponsors	Issue Date	Revision Date
GEZE GmbH Reinhold-Vöster-Straße 21-29 71229 Leonberg, Germany and E+ Building Products Pty Ltd Unit 11f, Old Pittwater Road Brookvale NSW 2100, Australia	06/02/06	31/08/11
	Validity Date	
	28/02/16	

The Fire Resistance Performance of E-core Doorsets with nominated variation to door closer

Variations Considered in this Report

Fitting the following door closers (overhead rack and pinion with guide rail or with link arm) in lieu of the door closer in the referenced tests.

Model	Outside dimensions of closer body Width x height x depth (mm)
GEZE TS 5000	287mm x 60mm x 46mm
GEZE TS 4000	287mm x 60mm x 46mm
GEZE TS 3000	226mm x 60mm x 46mm
GEZE TS 1500	177mm x 50mm x 39mm



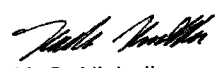
Referenced Test Reports

Test Report	Doorset Description	Test Standard
FSV 0609	Single leaf plywood faced E-core Doorset nominally 45mm thick	AS 1530.4- 1990
SI 2271	Two Leaf Plywood faced E-core Doorset nominally 45mm thick	AS 1530.4- 1990
FSV 0608	Single Leaf Plywood faced E-core doorset nominally 35mm thick	AS 1530.4- 1990

Additional Supporting Data

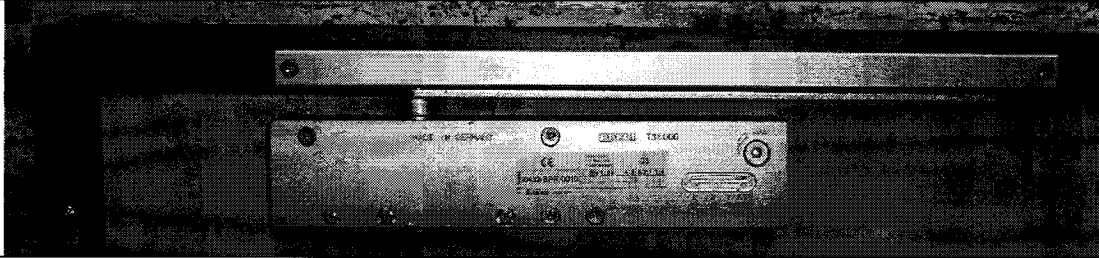
Test Report	Doorset Description	Test Duration	Test Standard
WFRA 41218	Single Leaf E-core Doorset nominally 35mm thick	121 minutes	AS 1530.4-2005

A pilot fire resistance test in accordance with Appendix B11 of AS 1530.4 2005 was conducted on a representative section of a doorset on 24th October 2005. It included a GEZE TS 5000 Overhead rack and pinion door closer with guide rail fitted to the door leaf. The closer did not initiate failure of the pilot doorset during the 121 minute fire resistance test, and continued to remain in place at the conclusion of the fire resistance test.

TESTING AUTHORITY	Exova Warringtonfire Aus Pty Ltd		
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Authorisation	Prepared By:	Revised by:	Reviewed By:
			
	A. F. Rayner	M Kamal	K. G. Nicholls

Hardware Description

Product name(s) and manufacturer:	GEZE TS 5000 Overhead rack and pinion door closer with guide rail. Manufacturer details held on confidential file.
Method of fixing of closer to door leaf	Metal screws engaging steel plates within door leaf construction
Maximum opening/ closing moment of closer	28Nm/ 17Nm



Typical installation of a GEZE TS 5000 Overhead rack and pinion door closer with guide rail on the unexposed side of the door leaf

Discussion

The method of installation of the proposed closer is comparable to the tested closers in FSV 0608, FSV 0609 and SI 2271.

The issues associated with substitution of the tested door closers with the proposed door closer is ignition of the door leaf due to the leakage of oil from the closer onto the door leaf.

It is expected if a proposed closer does not initiate failure of the pilot doorset before the failure occurred on the reference doorsets, that substitution of the proposed closer with the one tested on the reference doorsets will not be detrimental to the performance of the reference doorset.

Results from Pilot scale test WFRA 41218 confirmed this expectation and the closer is positively assessed for the proposed period.

The additional door closers (TS 4000, 3000 and TS 1500) – as stated by GEZE – are manufactured from the same materials, use the same internal operating mechanism (overhead rack and pinion), are of equal or smaller size, are mounted in a similar position (with respect to distance away from hinge stile – not to be less than 110mm) as per the tested closer TS 5000. With respect to the difference between the arm mechanisms of the TS 4000 and TS 5000 this variance is unlikely to be detrimental to the performance of the reference doorset because it only differs in the manner in which the force is applied.

Therefore these additional closers are positively assessed for the proposed period.

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 GEZE TS 1500, TS 3000, TS 4000 or TS 5000 Overhead rack and pinion door closer with guide rail (with link arm for the TS 4000) on the door leaf 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 operational characteristics and materials of the doorset and closer complying with Section 2 of AS 1905.1: 2005. The field of application of the proposed closer is defined by the field of application of the doorset the closer is installed upon.

Test Ref	Description	FRL
FSV 0609	Single leaf plywood faced E-core Doorset nominally 45mm thick	-/120/30
SI 2271	Two Leaf Plywood faced E-core Doorset nominally 45mm thick	-/120/30
FSV 0608	Single Leaf Plywood faced E-core doorset nominally 35mm thick	-/120/30

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 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.

9th February 2006

GEZE GmbH
Reinhold Voester Strasse 21-29
71229 Leonberg
GERMANY

c/o Zac Magraby
PO Box 179
Endeavour Hills
VIC 3802

Attn: Zac Magraby

Dear Zac,

Re: - The Fire Resistance Performance of Trafalgar and Pyropanel doorsets with nominated variations to the door closers:

(a) Fitting a GEZE TS 5000 Overhead rack and pinion door closer with guide rail to a Trafalgar Mini door leaf in lieu of the door closers tested in the referenced tests (WFRA Ref DHAR 41218 closer.1)

(b) Fitting a GEZE TS 2000 V BC door closer to a Trafalgar Mini door leaf in lieu of the door closers tested in the referenced tests (WFRA Ref DHAR 41219 closer.1)

(c) Fitting a GEZE TS 2000 V BC door closer to a Pyropanel Mini door leaf in lieu of the door closers tested in the referenced tests (WFRA Ref DHAR 41220 closer.1)

(d) Fitting a GEZE TS 5000 Overhead rack and pinion door closer with guide rail to a Pyropanel Mini door leaf in lieu of the door closers tested in the referenced tests (WFRA Ref DHAR 41221 closer.1)

Please find enclosed a copy (1-off per report) of the final door hardware assessment reports.

Please note the PDF versions of the above reports will be emailed to you today.

Please contact the undersigned if there are any queries regarding these assessment reports.

Yours Faithfully,


ALLAN RAYNER

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05/2/06
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