



ASSESSMENT REPORT

The fire resistance performance of
UltraMgO™ - Partition 20 Party Wall
System if tested in accordance with
AS1530.4-2014

EWFA Report No:

RIR 46975500.2

Report Sponsor:

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1 INTRODUCTION

This report contains the minimum information sufficient for regulatory compliance and refers to the Assessment Report EWFA 46975500.1.

The referenced report presents an assessment of the fire resistance performance of UltraMgO™ - Partition 20 Party Wall System if tested in accordance with AS1530.4-2014.

The tested prototypes described in Section 2 of this report, when subject to the proposed variations described in Section 3, are to perform satisfactorily if tested in accordance with the referenced test method described in Section 4. The conclusions of the report are summarised in Section 5.

The validity of the referenced assessment is conditional on compliance with Sections 7, 8 and 9 of the referenced report.

2 TESTED PROTOTYPES

The referenced assessment makes reference to test report EWFA 45751300.2, which describes a test of a 140mm thick partially loaded party wall system comprised of 20mm thick MgO board on the exposed side and 10mm thick USG Boral SHEETROCK® plasterboard on the unexposed side. The test was sponsored by Fireproof Cladding Facades Pty Ltd and was conducted by Exova Warringtonfire Aus Pty Ltd.

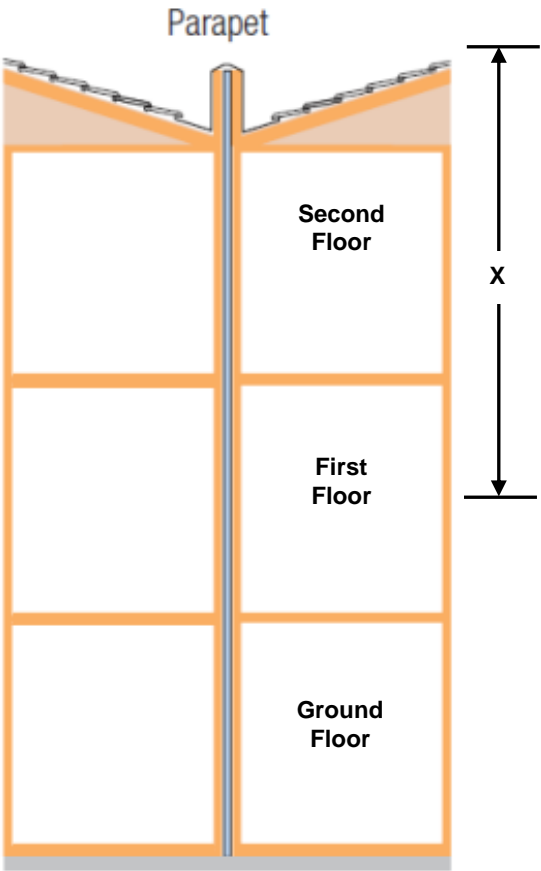
3 VARIATION TO TESTED PROTOTYPES

The proposed UltraMgO™ - Partition 20 Party Wall System shall be as tested in EWFA 45751300.2 and with consideration of the following variations:

- The wall height shall be maximum 9m.
- Timber framing sizes can be varied provided they are designed and constructed in accordance with AS1720.1 and/or AS1684 and a minimum 90mm deep.
- The steel structural framing is to be designed in accordance with AS/NZS4600 or AS3623 and a minimum 92mm deep.
- There should be a 20mm minimum gap between framing and panels.
- UltraMgO “W” brackets may be used on one side of the central MgO membrane to secure the H-channels holding the MgO boards onto the framing; however “L” brackets as tested in EWFA 45751300.2 must be used on the other side. The UltraMgO “W” brackets shall be made of the same material as the tested “L” brackets, i.e. mild steel.
- The maximum vertical spacing between brackets (UltraMgO “W” brackets or “L” brackets) used to secure the H-channels holding the MgO boards onto the framing shall be as per Table 1 below.
- The maximum horizontal spacing between brackets (UltraMgO “W” brackets or “L” brackets) used to secure the H-channels holding the MgO boards onto the framing shall be 610mm.
- Linings fixed to the wall frame on each side shall be minimum 10mm thick standard core plasterboard.
- Frameshield™ breather membrane shall be installed between the brackets (UltraMgO “W” Brackets and “L” brackets) and the framing, screw fixed in.
- Wall cavity shall be fully filled with Mineral (Rock) Wool.

The proposed construction is summarised in Figures 1 to 5.

Table 1 – Maximum Vertical Spacing between Brackets

	Wall Height measured from the top (X)	Maximum Vertical Spacing
	Up to 4.5m	1.35m
	4.5 – 5.5m	1.2m
	5.5 – 6.5m	1.1m
	6.5 - 7.5m	1.0m
	7.5 – 8.5m	0.95m
	8.5 – 9m	0.9m

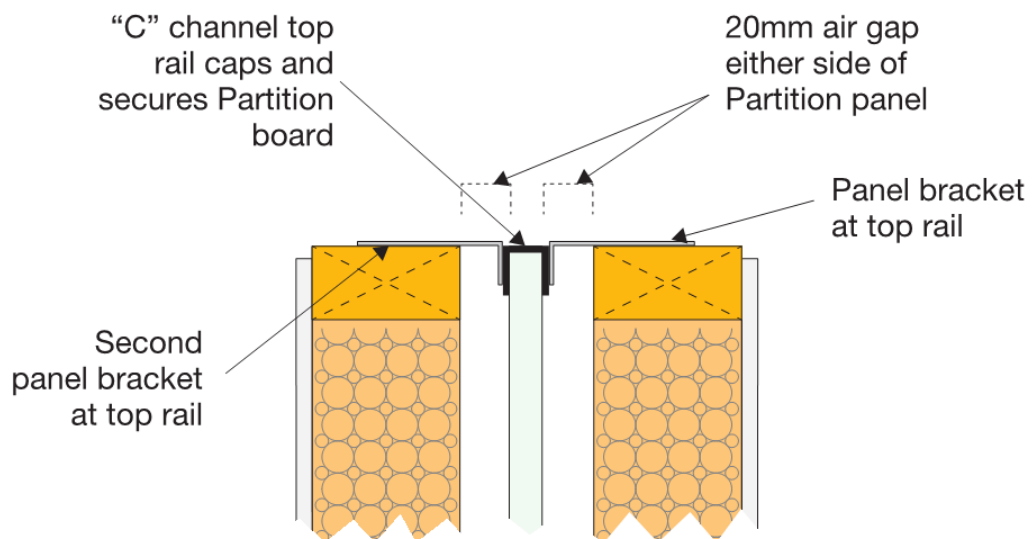


Figure 1 – Top of the wall detail

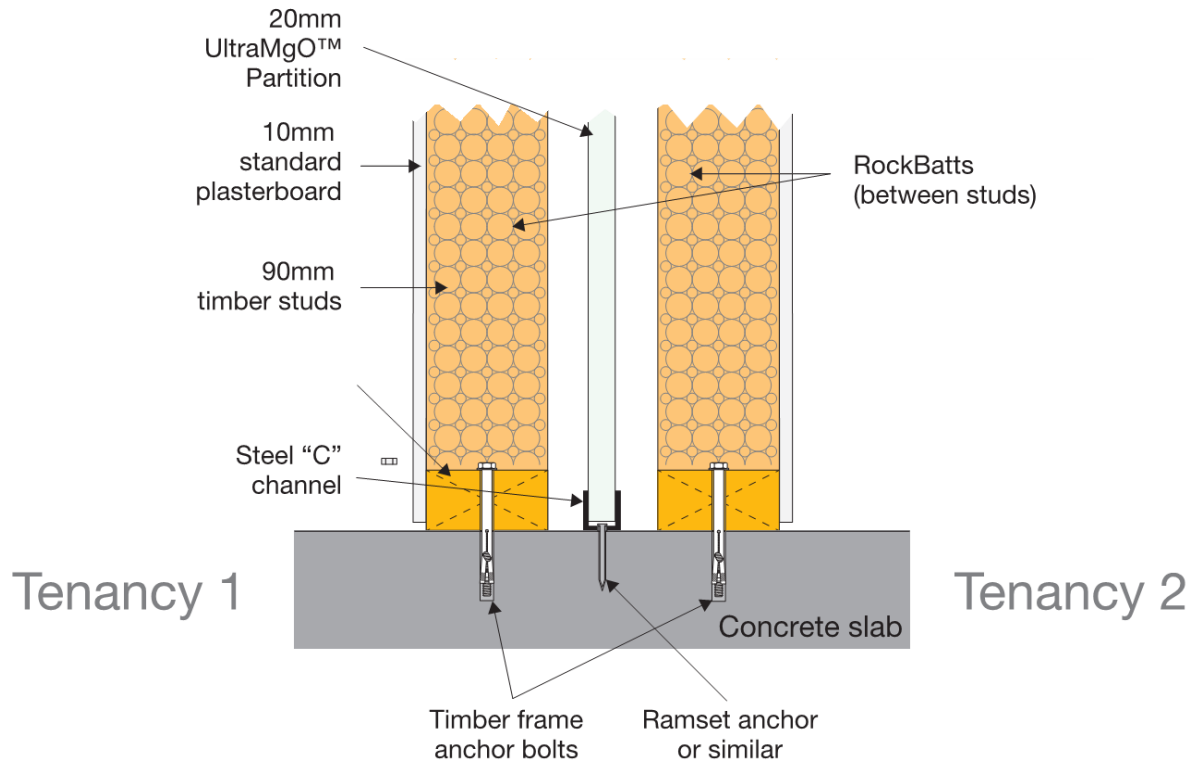


Figure 2 – Footing detail

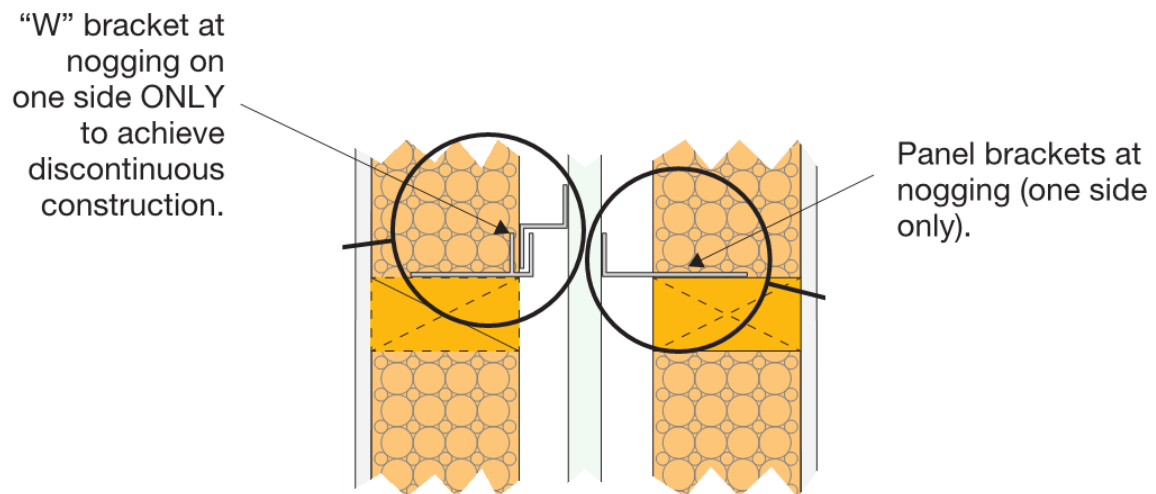
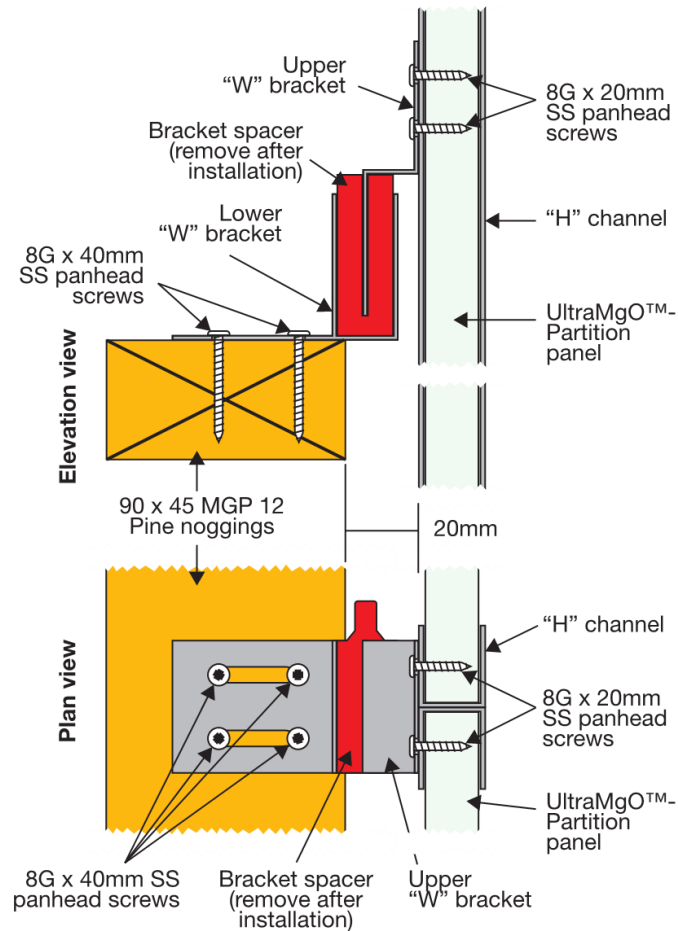
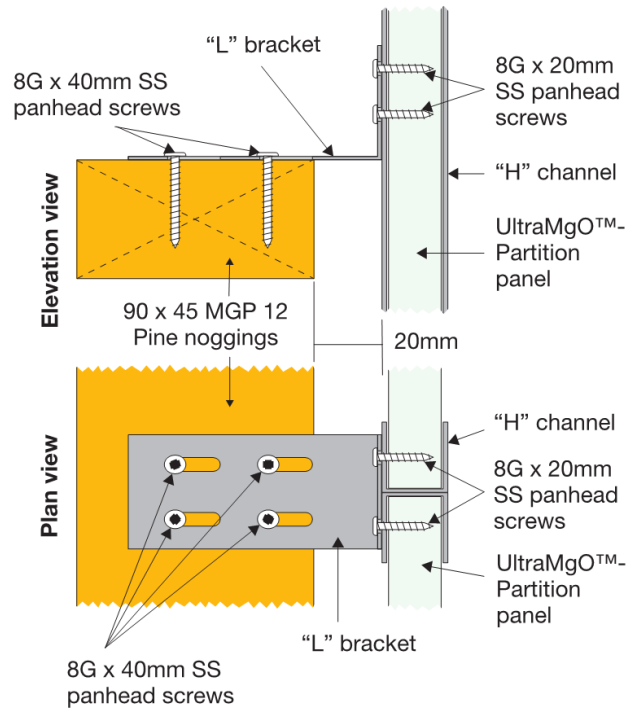


Figure 3 – Mid Wall detail



4 REFERENCED TEST PROCEDURES

This report is prepared with reference to the requirements of AS1530.4-2014.

5 FORMAL ASSESSMENT SUMMARY

On the basis of the discussion presented in this report, it is the opinion of this testing authority that if the tested prototypes described in Section 2 had been varied as in Section 3, they will achieve the fire resistance performances below if tested in accordance with the test method referenced in Section 4 and subject to the requirements of Section 7:

FRL: 60/60/60

6 DIRECT FIELD OF APPLICATION

The application of the results of referenced assessment is to walls exposed to fire from either side.

AS 1530.4-2014 states that the results of a fire resistance test on a wall are directly applicable without reference to the testing authority, to similar constructions where one or more of the following changes are made provided no individual component is removed or reduced:

- a) An increase in the width of a wall of identical construction is permitted.
- b) An increase in thickness of the framing is permitted.
- c) For framed walls:
 - (i) increase in timber density;
 - (ii) increase in cross-sectional dimensions of the framing element(s);
 - (iii) decrease in sheet or panel sizes;
 - (iv) decrease in stud spacing; or
 - (v) decrease in fixing centres of wall sheet materials.

7 REQUIREMENTS

This report details the methods of construction, test conditions and assessed results that would have been expected had the specific elements of construction described herein been tested in accordance with AS1530.4-2014.

Any further variations with respect to size, constructional details, loads, stresses, edge or end conditions, other than those identified in this report, may invalidate the conclusions drawn in this report.

8 VALIDITY

The referenced assessment report does not provide an endorsement by Exova Warringtonfire Aus Pty Ltd of the actual products supplied.

The conclusions of this assessment may be used to directly assess the fire resistance performance under such conditions, but it should be recognised that a single test method will not provide a full assessment of the fire hazard under all fire 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 on or, before, the stated expiry date.

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.

9 AUTHORITY

9.1 APPLICANT UNDERTAKINGS AND CONDITIONS OF USE

By using this report as evidence of compliance or performance, the applicant(s) confirms that:

- to their knowledge the component or element of structure, which is the subject of this assessment, has not been subjected to a fire test to the Standard against which this assessment is being made, and
- they agree to withdraw this assessment from circulation should the component or element of structure be the subject of a fire test by a test authority in accordance with the Standard against which this assessment is being made and the results are not in agreement with this assessment, and
- they are not aware of any information that could adversely affect the conclusions of this assessment and if they subsequently become aware of any such information, agree to ask the assessing authority to withdraw the assessment.

9.2 GENERAL CONDITIONS OF USE

This report may only be reproduced in full without modifications by the report sponsor. Copies, extracts or abridgments of this report in any form shall not be published by other organisations or individuals without the permission of Exova Warringtonfire Aus Pty Ltd.

9.3 AUTHORISATION ON BEHALF OF EXOVA WARRINGTONFIRE AUS PTY LTD

Prepared by:



S J Ding

Reviewed by:



O Saad

9.4 DATE OF ISSUE

26/05/2017

9.5 EXPIRY DATE

31/05/2022