



# Certificate of Test

No. 2580

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This is to certify that the element of construction described below was tested by the CSIRO Division of Materials Science and Engineering in accordance with Australian Standard 1530, Methods for fire tests on building materials, components and structures, Part 4-2005 on behalf of:

AFS Products Group Pty Ltd  
 22-24 Sommerville Circuit  
 Emu Plains NSW

A full description of the test specimen and the complete test results are detailed in the Division's Sponsored Investigation report numbered FSV 1654.

Product Name: 200-mm thick, load-bearing AFS 250 Rediwall Panel, structural wall system.

Description: The specimen comprised a reinforced concrete wall system 3000-mm high x 3000-mm wide x 200-mm thick made up of twelve pre-fabricated permanent formwork panels core-filled with concrete after assembly. The pre-fabricated permanent formwork system comprised 250-mm wide x 3000-mm high x 200-mm thick AFS 250 Rediwall panels. The extruded PVC panels comprised 2.5-mm thick perforated internal webs spaced at nominally 80-mm centres, as shown in drawing titled “AFS U250 Panel 200 THK Rediwall”, dated 22 July 2014, by LMGDS Pty Ltd. The panels interconnected vertically by integrated sliding male to female connectors to form a hollow panel wall. The ends of the wall were finished with solid End Caps, while the bottom consisted of a perforated Floor Track. The wall was reinforced with N12 reinforcing bars at 350-mm centres vertically and 400-mm centres horizontally. The panels were appropriately braced and 32 Mpa, 120-mm slump concrete mix was pumped in through the top openings and trowelled off along the top, when completely filled. The concrete mix design is specified in Hanson Construction Materials Pty Ltd report in Appendix D. A total load of 1000 kN was applied to the specimen for the duration of the test. The wall specimen wall was constructed on 20 January 2014.

The element of construction described above satisfied the following criteria for fire-resistance for the period stated.

Structural Adequacy	no failure at 241 minutes
Integrity	no failure at 241 minutes
Insulation	no failure at 241 minutes

and therefore for the purpose of Building Regulations in Australia, achieved a fire-resistance level (FRL) of 240/240/240. The FRL is applicable for exposure to fire from either direction.

This certificate is provided for general information only and does not comply with regulatory requirements for evidence of compliance.

Testing Officer: Chris Wojcik                      Date of Test: 11 August 2014

Issued on the 5<sup>th</sup> day of September 2014 without alterations or additions.

Brett Roddy  
 Manager, Fire Testing and Assessments



This document is issued in accordance with NATA's accreditation requirements.  
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