



Certificate of Test

No. 2087

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

Building Solutions Pty Ltd (now James Hardie Systems Pty Ltd)
 19 Lowermill Road
 COOROY QLD

A full description of the test specimen and the complete test results are detailed in the Division's sponsored investigation report numbered FSV 1324.

Product Name: Load-bearing permanent formwork, concrete core, XL 150 Wall System.

Description: The specimen comprised a reinforced concrete wall system 3000-mm high x 3000-mm wide x 150-mm thick made up of three pre-fabricated permanent formwork panels filled with concrete after assembly. The pre-fabricated permanent formwork panels comprised two 6-mm thick fibre cement sheets bonded using industrial strength adhesive to plated aluminium extrusions separated with plastic joiners at nominally 200-mm centres, to form a stud assembly. The studs were equally spaced over the width of the panel at nominally 164-mm centres. The plastic joiners generate a large open aspect for provision of horizontal and vertical reinforcing bars, as shown in Ritek drawing numbered RBS 1000, dated 28 June 2006. The panels were put up vertically, and were fastened together using 8g x 25-mm long CSK screws at 300-mm centres. The screws were fixed into a 1.2-mm thick x 40-mm wide aluminium strip located on the inside of the panel sheeting. The panels were appropriately braced and 32 MPa concrete 32-10-160 was pumped in through the top openings in 1500-mm high layers and trowelled off when completely filled. A total load of 800 kN was applied to the specimen for the duration of the test. Construction is detailed in Ritek drawing numbered RBS 1367, dated 1 October 2007.

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

For the purpose of Building Regulations in Australia, a fire-resistance level (FRL) of 240/240/240 was achieved. The FRL is applicable for exposure to fire from either direction. This certificate is provided for general information only and does not comply with the regulatory requirements for evidence of compliance.

Testing Officer: Chris Wojcik

Date of Test: 10 October 2008

Issued on the 21st day of August 2018 without alterations or additions. This Certificate supersedes issued dated 31 October 2008.

Brett Roddy
 Manager, Fire Testing and Assessments

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