INFRASTRUCTURE TECHNOLOGIES
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Certificate of Test

No. 3449

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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:

Firecrunch Australasia Pty Ltd
Suite 19, Level 44 MLC Centre
19 Martin Place
Sydney NSW 2000

A full description of the test specimen and the complete test results are detailed in the Division's Sponsored Investigation report FSV 2122.

Product Name: Load-bearing steel-framed wall system, lined on both sides with one layer of 10-mm thick product stated by the manufacturer to be identical to X-FIRE-10.

Description: The specimen consisted of a load-bearing framed wall system of overall nominal dimensions 3000-mm high x 3000-mm wide x 110-mm thick. The wall consisted of a steel stud frame lined on both sides with a product stated by the manufacturer to be identical to X-FIRE-10 with the cavity filled with mineral wool insulation. The wall frame consisted of eleven 90-mm x 45-mm x 1.0-mm BMT steel studs fixed into top and bottom 90-mm x 45-mm x 1.0-mm BMT steel tracks. The studs were spaced at nominal 300-mm centres, two back to back studs were used at 600-mm centres to correspond with each of the board joints, as shown in drawing numbered 2, undated, by FireCrunch Australia Pty Limited. The frame was faced on each side of the studs with one layer of 10-mm thick product stated by the manufacturer to be identical to X-FIRE-10 orientated vertically. The sheets were nominally 1200-mm wide x 3000-mm long x 10-mm thick, with a stated density of 950 kg/m^3. Before the boards were fixed onto the frame, a 3-mm x 10-mm bead of PROMASEAL A acrylic sealant was applied to the flanges of both tracks and studs and allowed to set overnight. The boards were then secured to the studs with 8-gauge x 25-mm long bugle head drywall screws at 200-mm centres, through pre-drilled holes, 15-mm from the board edges. The board joints were offset by 600-mm. A nominal 3-mm gap was left between all board joints which was later sealed to the full depth using PROMASEAL A acrylic sealant, taped and set using a setting compound. The wall cavity was filled with two layers of Fletcher Insulation mineral wool insulation batts. The batts had a stated density of 64 kg/m^3, measured 1200-mm in length and 900-mm in width. One layer of 50-mm thick batts was laid against the exposed boards while the 40-mm thick batts were laid against the unexposed boards. A total load of 55 kN (~18.3 kN/m) was applied to the specimen for the duration of the test.

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

Structural Adequacy	no failure at 98 minutes
Integrity	98 minutes
Insulation	89 minutes

and therefore for the purpose of Building Regulations in Australia, achieved a fire-resistance level (FRL) of 90/90/60. 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 Test number: FS 4519 Date of Test: 21 September 2015
Issued on the 30th day of June 2020.

B. Roddy

Brett Roddy
Manager, Fire Testing and Assessments

NATA Accredited Laboratory
Number: 165
Corporate Site No 3625
Accredited for compliance with ISO/IEC 17025