



Our ref: FCO-1737/3932

Mr Lorenzo Fazzini
L & A Fazzini Manufacturing Pty Ltd
23-25 Wentworth Street
GREENACRE NSW 2190

Dear Mr Fazzini,

FIRE PERFORMANCE OF TRIMESH SYSTEM

Opinion No FCO-1737

Your e-mail of 11 November 2010

INTRODUCTION

We have examined the information referenced by you on the likely performance of your Trimesh wall system incorporating a fire damper if tested to AS 1530.4-2005. The information included:

- Australian Standard 1530, Methods for fire tests on building materials, components and structures, Part 4-2005, Fire-resistance tests of elements of building construction;
- our fire-resistance test report numbered FSH 0649.

We have retained this information.

You have requested that we analyse the test data from your full-scale test in order to determine the likely performance of your wall system incorporating a damper assembly.

ANALYSIS

CSIRO Sponsored Investigation report numbered FSH 0649

On 22 December 1998 this Division conducted a full-scale fire test on a structure comprising vertical and horizontal panels of your Trimesh wall systems. The panels comprised various thicknesses of your Vermiduct and Alltex spray material, some in conjunction with polyurethane. One panel (Panel 3) comprising 35 mm of Alltex spray and approximately 25 mm of polyurethane incorporated 2400-mm wide x 900-mm high fire damper. The damper was installed using M10 threaded rods from the top of the wall and horizontal steel channels top and bottom of the actual damper body. At 42 minutes expansion of the damper, which was forced downward by the stiffness of the support rods, caused cracks in the portion of the wall below the damper. Throughout the test period this expansion resulted in significant distortion of the wall around the lower portion of the damper. Insulation failure was recorded at 94 minutes on a thermocouple on the wall in the region of the cracking caused by the expansion of the damper. In the region above the damper, which was not directly affected by the damper, the insulation failure was recorded at 138 minutes.

OPINION/CONCLUSION

Based on the information detailed above it is the opinion of this Division that the Trimesh R225 wall system with Alltex spray, as reported as Panel 3 in FSH 0649, would be capable of achieving fire-resistance levels of 240/240/120 if constructed as per the reference test but without the damper. It is also the opinion of this Division that the installation of an approved

damper into this wall system would not detrimentally affect the integrity of the wall provided that clearances as specified in Appendix C of AS 1682.2-1990 are provide between the fire damper and the sides of the penetration.

TERM OF VALIDITY

This assessment report will lapse on 31 March 2016. Should you wish us to re-examine this assessment with a view to the possible extension of its term of validity, would you please apply to us three to four months before the date of expiry. This Division reserves the right at any time to amend or withdraw this report in the light of new knowledge.

Yours faithfully



Russell Collins
For Manager, Fire Testing and Assessment

1 March 2011