

PRODUCT: XFLAM® INSULATION APRIL 2007

**SITUATION:** STRUCTURAL CAPABILITY

**APPLICATION:** WALLS, CEILINGS & ROOFS

**ISSUE:** Laminated insulated steel sandwich panel

**BACKGROUND:** This standard is used to provide some classification for combustible and partially combustible building materials. It is however a small scale test and not scalable to a real fire

situation.

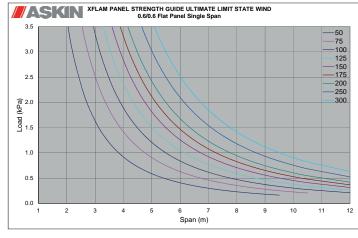
Steel clad insulated panel has in addition to the obvious benefits of being a complete solution of interior and exterior surfaced insulated panel a high degree of rigidity allowing considerable span distance between supporting structural framework.

The span capability is a function of the two steel skins bonded to each side of the insulation thus forming a structural beam. XFLAM is particularly well suited to lamination to rigid facing materials due to the excellent bonding characteristics derived from high peel strength and excellent crushing strength.

Load testing in various test facilities have enabled the development of conservative load bearing charts as a service to engineers for building design.

## PANEL SPANS:

Spans are indicative only and apply to wall and roof profiles using 0.6mm BMT. Specific site conditions need to be calculated by an engineer. For canopies and snow load refer to AS1170.3. By default use 1.00kPa for wind load, otherwise refer to AS1170.2.



XFLAM® Test Results			
PANEL THICKNESS	WALL 0.50 kPa	CEILING 0.75 kPa	ROOF 1.00 kPa
50mm	5.7	4.6	4.1
75mm	7.0	5.7	5.0
100mm	8.1	6.6	5.7
150mm	9.9	8.1	7.0
200mm	11.5	9.4	8.1
250mm	12.8	10.5	9.1

Approval

Technical Manager XFLAM Pty Ltd References: BRANZ Report ST0611 June 2005 Right Track Pty Ltd Report 50727 July 2005 Pressure test at BRANZ July 2007 Right Track Pty Ltd Report 68017 August 2006 Right Track Pty Ltd Report 70523 May 2007

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