



TECHNICAL BULLETIN NO. 11

PRODUCT: XFLAM® INSULATION

FEBRUARY 2013

SITUATION: IMPACT RESISTANCE

APPLICATION: REGIONS C & D

ISSUE: NCC SPECIFICATION B1.2 requires impact resistance for metal clad building envelopes to comply with AS/NZS1170.2 (2002 or 2011).

BACKGROUND: Impact resistance requirements changed with the introduction of AS/NZS1170.2 :2011. In the 2002 revision of the standard impact resistance was specified in clause 5.3.2 in relation to openings and required a projectile speed of 15m/s.

AS/NZS1170.2 :2011 has a new clause '2.5.7 Impact loading from windborne debris' defining impact resistance requirements. The Building Code requires impact resistance for Region C & D.

Projectile velocities are now defined as 0.4 VR for horizontal trajectories (walls) and 0.1 VR for vertical trajectories (roofs).

Example:

Regional wind speed for Cyclonic Region D $V_{2000} = 90 \times FD$ where $FD = 1.1$ gives 99m/s.

Therefore impact projectile velocities to satisfy AS/NZS1170.2 :2011 are:-

Walls = 39.6m/s

Roof = 9.9m/s

Impact resistance testing in accordance with AS/NZS1170.2 :2011 has been completed on XFLAM panels. The following passes have been achieved:-

XFLAM Metric Panel resisted the specified projectile velocity of 40m/s.

XFLAM Flat panel resisted the specified projectile velocity of 39m/s.

XFLAM panel is therefore a competent product to use in the most severe cyclone prone applications in Region C & D.

Approval

Technical Manager
XFLAM Pty Ltd

References:
Azuma test report AZT0335.12 Dec 2012

Azuma test report AZT0339.12 Dec 2012