

27th June 2011

Tim Renouf  
Wren Industries Pty Ltd  
139 Herald Street  
Cheltenham VIC 3192

Dear Tim,

Catastrophic structural collapse  
of subfloor timbers

I am writing to inform you of a problem in our villa unit in the Gippsland township of Wonthaggi.

In short, severe rot of sub floor structural timbers has been caused by the combination of high subsoil moisture content, lack of adequate subfloor ventilation and inappropriate use of non perforated subfloor insulation material.

This combination of factors has led to the moisture laden air, which is trapped between the ground and the underside of the foil laminated styrene foam insulating material, to condense as water, on the underside of the insulating foil laminated foam.

As the insulating foam is sitting on and supported by the subfloor timber (bottom plate of I-BEAM joist), this condensed water then soaks into the wood, with the result that over time, rot, fungal growth and decay of the sub floor timbers has eventuated causing catastrophic structural collapse! The unit is only 6 years, 6 months old!

The builder of the unit in question is not to blame, moreover he argued with both the architect and the engineer, that non perforated, foil laminated foam insulating material should NOT be used because he could envisage possible problems.

The builder was forced to comply, in order he was told, to achieve the "5 Star rating". Had your product, Concertina Foil Batts, perforated for sub floor application been utilized, this situation would have been greatly reduced or avoided, importantly, the 5 Star rating could still have been attained.

This case indicates there are important lessons to be learnt by the building industry and the push for "star rating" for insulation at the expense of sensible and real life testing of building and insulation standards in Australia. I am awaiting a full report from Archicentre as to their findings and will keep you informed.

Best regards,

Rob Cattanach.

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VIEW BETWEEN I-BEAM JOISTS: STYRENE/FOIL REMOVED



BEARER ROTTED & SLIPPING



STYRENE/FOIL BETWEEN JOISTS  
& FUNGAL GROWTH ON BEARER