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18 September 1992

Name and Address
withheld for privacy

Re: Thermal Insulation

Dear Sir/Madam,

Our Insulation researcher Robin Clarke has provided the following comments on the issues raised in your letter of the 14th of September 1992.

“It is difficult to estimate the reduction in performance caused by low-resistance parallel heat flow paths such as those which result from gaps in ceiling insulation. Assumptions about the thermal resistance of adjacent materials (such as the ceiling lining material) and of air movement in the roof space must be made.

For one set of fairly pessimistic assumptions, the following may be obtained by an inexact calculation method.

For 1% gaps:-

Effective thermal resistance of R 3.0 batts	= R2.5
Thermal resistance of batts to give R 3.0 effective	= R 3.7

For 5% gaps:-

Effective thermal resistance of R 3.0 batts	= R1.5
Thermal resistance of batts to give R 3.0 effective	= infinite

If one could justify more pessimistic assumptions about roof space air movement, still greater losses due to gaps may be calculated.”

Yours Faithfully.

Karl Armstrong
Technical Information Officer
Information Resource Centre

Rite Temp Insulation