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The fibreglass insulation industry need to be forced to attend the Home Insulation Program(HIP)Senate Inquiry and answer the question of why their products (eg PINK BATTS) are not tested for high temperature radiation such as 50-70degC, temperatures as found typically in Australian roof spaces.

Bulk fibrous insulations have a “standardised” **material R-value** (resistance to the flow of heat) measured in a *steady-state Heat Flow Meter*(USA test methodology) between hot and cold contact plates set at 33 & 13 degC, where the mean (average) temperature is 23 deg. ^{**ie 33+13 = 46div2= 23 degC.} The duration of the test is four hours. If the material thickness is doubled, then the R-value is doubled.

It is an established scientific fact that when mean(average) temperature increases for any insulation , the resistance (R-value) falls. But in reality, all insulations have *variable Rvalues* – claimed *guaranteed Rvalues* for bulk insulations are only valid for the standardised test conditions (33/13degC).

The HIP calls up the Insulation Standard AS/NZS 4859.1 which requires the assessment of radiant energy, but permits fibrous batt insulations to be labelled at 23 degC, a grossly inadequate testing condition for much of Australia’s hot climates. The central problem is that no testing facility exists in Australia for realistic thermal measurement for both cold and hot climates. to happen. The Standard is contradictory and needs revision.

The federal government should not have rushed into the Home Insulation Program without consulting the insulation industry more widely. Adopting Material R-values for Climate Zones 1&2 (northern Australia and coastal QLD extending down to Port Macquarie) permits the use of R3.0 fibreglass PINK BATTS. If the batts are tested at only 33degC, then what will the government say when complaints come in saying that the insulation is making the house hotter?
In summary, a Court case will eventually be brought against some agency that a fixed static Material R-value for any bulk insulation will be found to be actionable under Trade Practices for deceptive advertising. The government should face its responsibilities and deal with this issue now.

Australian 16/12/09 pg 2: “Third of power costs rise due to CPRS” Electricity bills in NSW estimated to rise over 3 years 44-62%. Reducing greenhouse gas emissions requires the reduced air-conditioning which causes peak load demand. Unless insulation materials can actually achieve lower cooling costs(by proven in-situ test programs, not computer programs), then tax-payers money is wasted and very likely the Home Insulation Program will be counter-productive in making house hotter in summer.

On the other hand, aluminium foil insulations permanently resist radiation by approx 97%.

A small proportion of the \$4.6 billion approved for the Program should have been allocated to determine what insulation materials are best suited to hot climates.

In the public and national interest, the Senate Inquiry should demand to know why all insulation products are not tested for realistic high temperature effects.

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