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# BRUFMA

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17 May 2007

Julia Hailes  
Features  
The Daily Telegraph  
Telegraph Media Group,  
111 Buckingham Palace Road,  
London  
SW1W 0DT

Dear Mrs Hailes

### **ARTICLE IN DAILY TELEGRAPH 15 MAY 2007 – HOW TO SAVE ENERGY AT HOME – INSULATION (p26)**

The above article contains a large number of errors and inaccuracies and I would like to point these out so that in future they can be corrected. I am writing as the Chief Executive of the British Rigid Urethane Foam Manufacturers Association (BRUFMA) which represents the interests of the major manufacturers and suppliers of materials to the industry.

BRUFMA members have, for many years, been active in promoting increased energy efficiency, and their products have contributed, and will continue to contribute to, the significant reduction in emissions of CO<sub>2</sub> by improvements in insulation performance in line with Building Regulations and the Energy Performance of Buildings Directive. Polyurethane (PUR)/Polyisocyanurate (PIR) insulation is one of the most thermally efficient insulation materials available, and because of its other unique properties is ideally suited for many building insulation applications.

Our main concern with your article is with the ratings section of insulating materials, where you personally rate polyurethane/ polyisocyanurate board and foam as the lowest of the materials, but your ratings are not made by a comparison of like with like properties, and are based on a poor understanding both of the material properties and of modern construction methods. We fail to understand how you can give a rating of 9/10 to recycled newspaper powder, which you acknowledge has to be applied by a professional installer, isn't suitable for cavity walls and doesn't perform well if it gets wet, yet give a rating of 1/10 to polyurethane/polyisocyanurate board and foam which you agree is an excellent insulant.

The article contains many other incorrect and unbalanced statements, some examples of which are given below:

In the polyurethane/polyisocyanurate board and foam section of the article it acknowledges the fact that the materials are excellent insulators but then states that *'they're the most energy-intensive insulating materials to*

*make and they use chemicals that are powerful greenhouse gases'*. This is a very misleading statement in two ways. Firstly, the embodied energy is very much dependent on the mass of the material, and polyurethane is a very low density, lightweight insulant with a corresponding low mass per square metre. It has been shown by the Building Research Institute (BRE) that for a typical cavity wall construction using 30 mm of PUR insulation the insulation accounts for only 7% of the environmental impact of the wall, the majority coming from the high mass brick and block. **It is clear that the embodied energy of any high efficiency insulant is insignificant compared with the energy saved over the lifetime of the building.**

What the article also takes no account of is the longevity of these products, which is expected to be more than 50 years in use. It has been demonstrated that PUR/PIR products maintain their declared performance over the lifetime of a building, an important consideration when looking at sustainability issues. In building applications long life and non-biodegradability should surely be viewed as a positive feature. At end of life these materials can ideally be re-used or incinerated with energy recovery, thus feeding back production energy.

Secondly, polyurethane / polyisocyanurate foams are not (except now in very specific applications where there are no suitable alternatives) produced using HFCs or any other chemicals that are powerful greenhouse gases, and have not used these materials for some years.

**The industry has been at the forefront of developing alternative products which continue to be excellent insulation materials whilst minimising their environmental impact.**

In terms of the statement "Like other foams, they produce toxic fumes when burnt" this is a statement of fact which should also be included with all the organic materials, including your highly rated cellulose and sheep's wool, as ALL organic materials will create toxic fumes when burned, the actual gases and amounts depending very much on the severity of the fire conditions. **There is no evidence we are aware of to suggest that PIR/PUR insulation is any worse than many other organic materials**, in fact, there is evidence to suggest that, for example, sheep's wool, generates higher levels of some toxic gases than polyurethane insulation when burned.

In summary polyurethane / polyisocyanurate insulation materials:

- Are amongst the most thermally efficient materials known and thus can contribute massively to energy savings.
- Are rigid and lightweight, so easy to install
- Are hydrophobic, and because of their closed cell nature are unaffected by moisture and the passage of moist and cold air.
- Are long lasting and will generally last the lifetime of a building
- Are not affected by vermin and do not support the growth of micro organisms in construction works
- Are non fibrous, so rigid materials can be installed without specialist equipment.
- Sprayed foam in roof applications can contribute both to insulation but also to improve the resistance of existing roofs to damaging wind conditions.

We would welcome the opportunity to provide any more information you should need, and hope that what we have provided above will at least allow you to correct some of the errors in the article.

As individuals we are all very concerned about improving our own environment and trying to increase the sustainability of materials to reduce the depletion of resources, and support any initiatives which further educate the UK population. All we ask is that a fair and balanced view is taken, which takes into account the complete picture, rather than subjective assessments based on poorly evaluated and out of date data. A range of additional material available looking at many issues related to PUR/PIR insulation is available from our website at [www.brufma.co.uk](http://www.brufma.co.uk).

Yours sincerely

**J ROBERTS**  
**Chief Executive and Company Secretary**