

**THE HIGHLAND COUNCIL**  
**BUILDING STANDARDS**

**Professional Policy Note**

**Multi-foil insulations**

(05 Jan 2008)

**BST-002**

## **Purpose**

The Highland Council Building Standards Professional Policy Notes are produced to inform and create uniformity and consistency of interpretation throughout the Highland Council area, thus promoting good practice and customer care for the benefit of our Stakeholders. Please note that this policy note is based upon information available at the time of issue, and may be subject to change.

## **Background**

For most Building Standard Surveyors in the HC our first experience of multi-foil insulations came with the introduction of products from ACTIS. The claims made for such products were greeted with some scepticism, however the product was "certified" by TRADA and given the high level of regard that Building Standards place in TRADA, many Building Standards Authorities began to accept these multi foil insulation products.

The key issue of concern relates to the way the insulating properties of multi foil products have been tested. For many years, the appropriate method for determining insulation performance has involved the use of "Hot Box" testing in accordance with National and European standards. There has been a long standing debate regarding the suitability of the 'hot box' test under BS EN ISO 8990:1996, amended in 2006, to measure the thermal performance of thin, reflective multi-foil insulation. Several manufacturers however feel that the "Hot Box" test does not fully reflect the special characteristics of their products and hence that a test to current BS EN standards will understate the actual insulation performance that can be achieved in real installations. They have therefore sought to develop new test methods which involve comparisons (using test rigs or actual buildings) between their own product and other insulating products. Unfortunately there are no currently accepted National or European standards for performing tests in any other way, and it is therefore not possible to be sure that the results of other tests give a fair comparison of performance between competing multi-foil products, or indeed between multi-foils and existing insulation products which have been tested to established standards.

To confuse matters the 2006 edition of BR 443 stated that the 'hot box' can be used to test the thermal performance of multi-foil insulation. As a consequence of this the LABC issued a guidance note to Building Control Bodies (England & Wales) advising that thin multi-foil insulation should only be accepted on the basis of the results given by a 'hot box' test.

ACTIS brought Judicial Review proceedings against the Secretary of State for Communities and Local Government and, on Friday 2 November 2007, the Administrative Court found in favour of ACTIS in these proceedings. As a result of these proceedings, the provisions of the 2006 version of BR 443 which relate to multi-foil products have been declared inapplicable and unenforceable.

Two key issues which led the Court to find in favour of ACTIS on the question of BR 443 were as follows:

- (i) the DCLG did not notify the 2006 version of BR 443 to the European Commission as required by the Technical Standards Directive, which seeks to reduce barriers to trade within the internal market.
- (ii) the DCLG failed to consult the multi-foil insulation sector before the drafting was carried out.

## **Policy**

Whether these materials do have the thermal performance they claim to have is something that will hopefully emerge over the coming months/years when a consensus is reached on performance testing. For info there are currently two procedures in progress at a European level for establishing an appropriate standard for thin multi-foil insulation:

- \* European Technical Approval (ETA) request via a CUAP.
- \* European Committee for Standardisation (CEN), Workshop 36.

In the meantime Highland Council has decided to err on the side of caution in order to prevent the possibility of work being carried out where the thermal performance falls short of expectations. Consequently the Highland Council will not accept any multi-foil insulation products unless they have been tested in accordance with the "Hot Box" test.