

TEST REPORT

ISSUED BY **British Board of Agrément**

DATE OF ISSUE **6 October 2008**

SERIAL NUMBER **5724**



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APPROVED SIGNATORY

J Holdsworth

CLIENT: Black Mountain Insulation Ltd
Unit B & C, Expressway 3
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Rhyl
Denbighshire
North Wales
LL18 5JA

JOB No: T1/43757

1 INTRODUCTION

The test specimen was supplied by the client and described as Sheep wool. It was stated to have been manufactured on and was delivered in the form of 760 mm x 760 mm x 75 mm .

2 METHOD

Heat Flow Meter Method of ISO 8301 : 1991 and BS EN 12667 : 2001 using the BBA single specimen symmetric test facility designated K4. Edge guarding is provided by an independently heated zone at the perimeter of each plate and apparatus wall temperatures controlled to match the mean specimen temperature. Specimen thickness was measured in accordance with BS EN 823.

3 SPECIMEN PREPARATION

The test specimen was assigned the BBA designation number T1/43757/1 and stored in a well-ventilated position in an air-conditioned room at $23 \pm 2^{\circ}\text{C}$, $50 \pm 5\%$ rh until it was tested.

4 MEASURED PROPERTIES

Thermal conductivity W/(m·K)	Thermal resistance m ² ·K/W	Density Kg/m ³	Mean temperature (°C)
0.0391 ± 2.5%	1.92 ± 2.5%	21.3	9.9

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with ISO/IEC 17025:2005.

This report provides traceability of measurement to recognised national standards, and to the units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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5 RESULTS

Test details

Relative mass change during conditioning	-2.00%
Cold face temperature (°C)	-0.20
Hot face temperature (°C)	19.98
Average temperature difference across specimen (K)	20.18
Relative mass change during test	0.07%
Average imposed specimen thickness (mm)	75.0
Mean heat flux (W/m ²)	10.5
Direction of heat flux	Upwards
Interface medium	None
Applied load (Pa)	~ 50
Cold face emissivity	0.89
Hot face emissivity	0.89
Duration of test (hh:mm)	17:46
Duration of steady state (hh:mm)	9:54
Date of test completion	30 September 2008
Age of specimen (days)	

Calibration details

Date of last verification	Jan-08
Certified reference material	IRMM-440

6 CE MARKING

The BBA has been notified as an approved testing laboratory (notification number 0836). Within the context of 89/106/EEC Construction Products Directive this data can contribute to the Attestation of Conformity requirements for CE Marking, if it can be shown that the test specimen has been taken from the same sample as described in the relevant product standard.

7 COMMENTS

The measured thickness of the sample was 81.2mm at 50Pa to BS EN 823 but the sample was measured at nominal thickness of 75mm as specified in BS EN 13162, Section 5.3.2.