



# TEST REPORT

ISSUED BY **British Board of Agrément**  
DATE OF ISSUE **29 January 2013**  
SERIAL NUMBER **50770THE**

REPORT PREPARED BY

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AUTHORISED BY

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JOB No: T950770

## 1 INTRODUCTION

The test specimen was supplied by the client and described as Insulated concrete formwork system Lot# 293247 0183 of 0500, production date 30-Oct-12. It was delivered in the form of 430 x 165 x 55mm blocks.

## 2 METHOD

Heat Flow Meter Method of ISO 8301 : 1991 and BS EN 12667 : 2001 using the BBA single specimen symmetric test facility designated K9. Edge guarding is provided by an independently heated zone at the perimeter of each plate and thermal insulation with a resistance in excess of 3 m<sup>2</sup>K/W. Specimen thickness was measured in accordance with BS EN ISO 12667.

## 3 SPECIMEN PREPARATION

The test specimen was assigned the BBA designation number T950770/5 and stored in a well-ventilated position in an air-conditioned room at 23 ± 2°C, 50 ± 5% rh until it was tested.

## 4 MEASURED PROPERTIES

| Thermal conductivity<br>W/(m·K) | Thermal resistance<br>m <sup>2</sup> ·K/W | Density<br>kg/m <sup>3</sup> | Mean temperature<br>(°C) |
|---------------------------------|---|------------------------------|--------------------------|
| 0.035 ± 2.5%                    | 1.41 ± 2.5%                               | 21.2                         | 10.0                     |

**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

|  |                     |
|--|---------------------|
| Cold face temperature                          | 20.02 °C            |
| Hot face temperature                           | 0.02 °C             |
| Average temperature difference across specimen | 20.00 K             |
| Relative mass change during test               | 0.20%               |
| Average imposed specimen thickness             | 49.7 mm             |
| Mean heat flux                                 | 14 W/m <sup>2</sup> |
| Direction of heat flux                         | Upwards             |
| Interface medium                               | None                |
| Applied load                                   | 43 kPa              |
| Cold face emissivity                           | 0.89                |
| Hot face emissivity                            | 0.89                |
| Duration of test (hh:mm)                       | 2:29                |
| Duration of steady state (hh:mm)               | 2:30                |
| Date of test completion                        | 15 January 2013     |
| Angle of orientation                           | 0 °                 |

### Calibration details

|                              |              |
|------------------------------|--------------|
| Date of last verification    | Jan-13       |
| Certified reference material | Mineral wool |

## 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

None

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## 8 REPORT CONDITIONS

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