

# TEST REPORT

# SABS

Heat Transfer Laboratory

Report No. 7232.YK1352-4

Your ref: CMACAPE02  
Our ref: YK1352-4  
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Page: 1 of 1  
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## THERMAL TRANSMITTANCE

### 1. DESCRIPTION OF SAMPLE

Material and identification : "M140 INCA" hollow concrete block  
Size of sample : approx 600 mm x 600 mm x 140 mm (built up)

### 2. METHOD OF TEST

Sample preparation : The samples (2 concrete walls) were built according to the supplier's requirements and left to cure for a period of at least 7 days.  
Conditioning : The samples were conditioned for a period of at least 48h at laboratory conditions before being tested.  
Test apparatus : The sample was tested on a 610 mm square guarded hot plate apparatus, in accordance with ASTM C177. The apparatus conforms to ISO 8302.

### 3. RESULTS

Average weight of one wall sample, kg	56.4
Average thickness of wall sample, m	0.140
Hot face temperature, °C	36.8
Cold face temperature, °C	10.2
Mean temperature, °C	23.5
System thermal resistance, m <sup>2</sup> .K/W	0.246

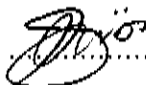
### CALCULATIONS

Thermal Transmittance (U-value, W/(m <sup>2</sup> .K))	
Sample vertical, heat flow horizontal	2.49 (external panel)
Sample horizontal, heat flow up	2.58 (external panel)
Sample horizontal, heat flow down	2.26 (external panel)

- Notes :
- 1) Duration of test : 2005-10-11 to 2005-10-12
  - 2) Calculations of thermal transmittance based on CSIR publication X/BOU 2.8 dated September 1971
  - 3) Uncertainty of measurement:  $\pm 10\%$
  - 4) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$  which for a normal distribution corresponds to a coverage probability of approximately 95 %.

Tested by and Technical signatory

CG Krös



Checked by

J Vosloo



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This test was performed by SABS Commercial (Pty) Ltd.  
This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested.  
(Refer also to the complete conditions printed on the back of the official test reports.)

