



LAB n° 0097

RAPPORTO DI PROVA N° 2004 / 2013

Monza, 12.12.2013

Applicant: D'APPOLONIA SPA — VIA MARTIRI DI CEFALONIA— 20097 S. DONATO MI LAN
ES E (MI)

Sampling: by the applicant

Sample receipt date: 06.11.2013

Declared sample: Flexible material for thermal insulation, named "Sample E — ISOBELL LAV
9878"

Sample description: 2 overlapped specimens of (300x300x4.5) mm

Sample identification: 684/2013"

DETERMINATION OF THERMAL CONDUCTIVITY

Analysis Method: UNI EN 12667:2002

Test Date: 29.11.2013

Method Used: Heat Flow Meter

Equipment: NETZSCH HFM 436/3/1 Lambda

Sample Placement and Heat Flow Meter Orientation: Horizontal

Measurement Surface: 250 mm x 250 mm = 0.0625 m²

Last Calibration Date: 27.11.2013

Drying temperature: (70±5) °C'. Conditioning process: (23±2) °C - (50±5) % U.R.

Drying and Conditioning Method: to constant mass

Relative mass change during drying: 0.0%

Relative mass change during conditioning: 0.0%

Relative mass change during the test: 0.0%

Calibration reference of the test plate: EPS Plate — R 1.532 m²K/W — Calibration Certificate
NPL (UKAS no. 4002) no. PR44/E09010159 dated 03.03.2009, valid until 03.03.2014."

Detected thickness': 0,0090 m Detected Surface: 0,0900 m²

Upper Plate Temperature 19,8 °C Down Plate Temperature: 0,1 °C

Average temperature difference. 19,8

Heat flux : 68,05 W/m² Thermal gradient 2194,8 K/m

Average Test Temperature: 10.0 °C Ambient Temperature: (23 ± 2) °C

Test Duration: 65 minutes



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Density: 147,0 kg/m³

Thermal conductivity.: 0,0309 W/(m K)

Thermal resistance: 0,291 m² K/W

The uncertainty of the thermal conductivity measurement is estimated to be ± 0.001137 W/(m K), expressed as expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of approximately 95%. Typically, this k factor is 2."

Il Responsabile della Prova
(dott. L. Ravasio)



Il Responsabile del Laboratorio
(ing. L. Galbiati)

