WL 376
Thermal conductivity of building materials

Description

- **heat conduction in non-metallic materials**
- **material thickness or combinations up to a thickness of 50mm can be used**

This experimental unit enables experiments to be performed on steady-state heat conduction in non-metallic materials such as polystyrene, PMMA, cork or plaster in accordance with DIN 52612. Specimen sheets are placed between a heater plate and a water-cooled plate. A clamping device ensures that the clamping pressure and thermal contact are reproducible.
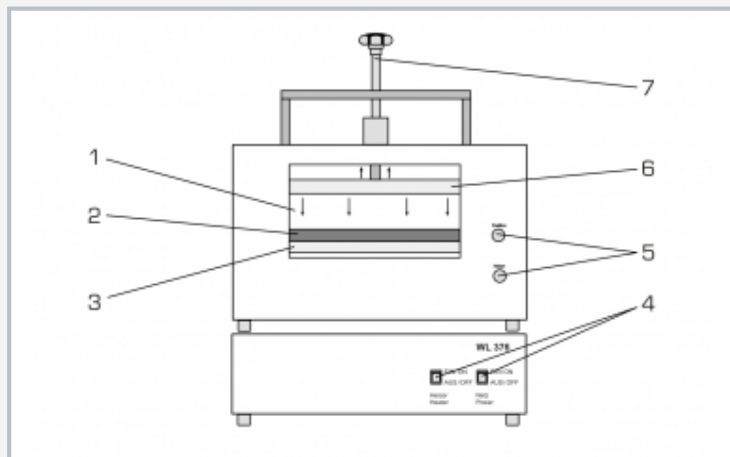
A special sensor measures the heat flux. Electronic controllers keep the temperatures of the heater plate and cooling plate constant within close limits.

The measured values are transmitted directly to a PC via USB. The data acquisition software is included.

G.U.N.T. Gerätebau GmbH, Hanskampring 15-17, D-22885 Barsbüttel, Telefon (040) 67 08 54-0, Fax (040) 67 08 54-42, Email sales@gunt.de, Web www.gunt.de
We reserve the right to modify our products without any notifications.
Page 1/3 - 04.2017

WL 376
Thermal conductivity of building materials

1 chamber where specimens are placed, 2 cold plate, 3 water cooling, 4 main switch and heater switch, 5 control lamps, 6 hot plate, 7 clamping spindle

Specification

[1] determination of the thermal conductivity of building materials
[2] thermal conductivity λ and thermal resistance measurement in accordance with DIN 52612
[3] reproducible clamping pressure due to clamping device
[4] 8 specimens to be put between hot and cold plate
[5] hot plate with heater mat
[6] cold plate with water cooling and heat flux sensor
[7] software controllers for temperature adjustment of hot and cold plate
[8] 3 temperature sensors for the cooling water: at inlet, at outlet and in the centre of the plate
[9] 2 temperature sensors for surface temperature
[10] GUNT software for data acquisition via USB under Windows 7, 8.1, 10

Technical data

Electric heater mat
- power: 500W
- max. temperature: 200°C, limited to 80°C

Specimens
- LxW: 300x300mm
- thickness: up to 50mm
- material: Armaflex, grey cardboard, PMMA, polystyrene, PS, POM, cork, plaster

Measuring ranges
- temperature: 3x 0...100°C, 2x 0...200°C
- heat flux density: 0...1533W/m^2

230V, 50Hz, 1 phase
230V, 60Hz, 1 phase
120V, 60Hz, 1 phase
UL/CSA optional
LxWxH: 710x440x550mm (experimental unit)
LxWxH: 710x440x200mm (control unit)
Weight: approx. 90kg (total)

Required for operation

water connection, drain
PC with Windows

Scope of delivery

1 experimental unit
1 control unit
8 specimens
2 hoses
1 GUNT software CD + USB cable
1 manual

We reserve the right to modify our products without any notifications.

Optional accessories

020.30009	WP 300.09	Laboratory trolley