

**Base data**

Task No:	TC-01
Task requester/Customer	
Contact	
Task responsible	Morten Dahl
Test responsible	Okan Özcelik
Date for request	
Date for completion	

**General test description**

The thermal conductivity test provides simple and fast results regarding a material's ability to transfer or conduct heat. The thermal conductivity ( $\lambda [W/m^2 \cdot K]$ ) of a material can be determined by e.g., steady state method which is based on an established temperature difference that does not change over time. The test setup consists of two heating sources (hot & cold) with the sample placed in between, and temperature sensors connected to each side. The setup is enclosed by a guard ensuring the heat flows unidirectionally and a cover is used to both isolate the setup from heat loss and to minimize the contact resistance between each layer. The Guarded Hot Plate Method setup is shown in Figure 1.

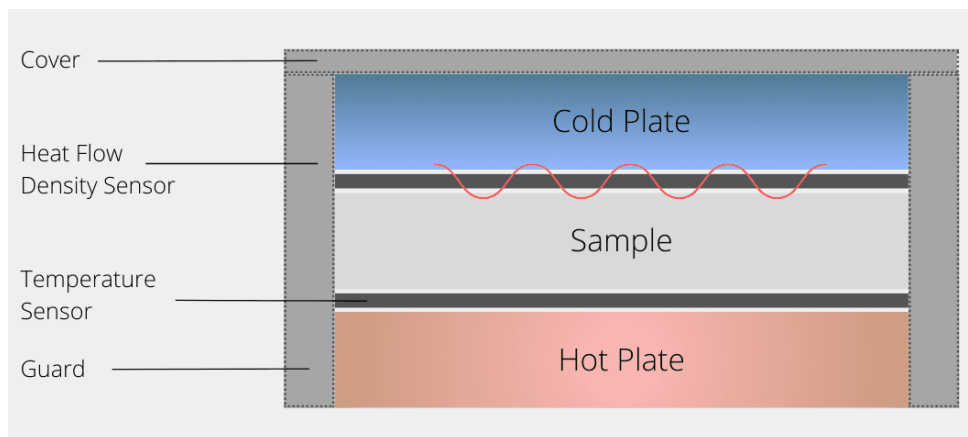


Figure 1: Test setup for Guarded Hot Plate Method.

**Configuration overview**

Thermal conductivity	
Parameter	Value
Thickness	1 - 50 mm
Dimension	120 x 120 mm
Materials	Polymer, rubbers, metals.

**MDT A/S**

Address: Industrivej 5, DK-6000 Kolding

Tel.: +45 75559797

Email: [info@flexible-products.dk](mailto:info@flexible-products.dk) Website: [www.flexible-products.dk](http://www.flexible-products.dk)