

Hukseflux thermal conductivity laboratory is now active!



Hukseflux has been working in the thermal conductivity field for 10 years and is pleased to announce the introduction of the new thermal conductivity laboratory. Our laboratory is equipped with highly accurate sensors to satisfy a large variety of customers' requests. We have experience with samples of very different shapes and compositions. Measurements can be performed under several temperature and pressure conditions in compliance with ISO standards. We can reach up to -260 degrees C and 300 Bar. Measurements are performed at very attractive prices. The launch of the thermal conductivity laboratory is yet another example of Hukseflux' unrelenting dedication to advance thermal measurement.

Applications of thermal conductivity measurements

Hukseflux is specialized in the measurement of thermal conductivity, thermal resistivity and contact resistance of plastics, composites, fluids, pastes and granular materials like soils. Special capabilities include the measurement of composites in two directions (parallel to and perpendicular to the fiber orientation), and the measurement of thin plastic and metal foil materials. Our capability to measure thermal properties leads to better understanding of material behavior which allows others to improve product design.



TPSYS: fluids, granular materials etc



TPSYS02 is a system for the measurement of thermal conductivity using Non-Steady-State Probes (NSSP) or needles. The system is designed for high accuracy measurements. It is particularly suitable for analysis of soils, thermal backfill materials, sediments, foodstuff, powders, sludges, paints and glues. The main components of TPSYS02 are the TP02 needle (see figure, or its smaller equivalent, type TP08) Non-Steady-State Probe, the MCU Measurement and Control Unit and software. TP02 and TP08 needles are designed for measuring in media in the thermal conductivity range of 0.1 to 6 W/mK.

THASYS and THISYS: for plastics and metals

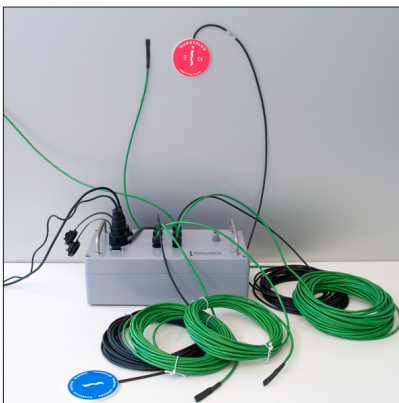
THASYS and THISYS offer measurements of thermal conductivity or total thermal resistance of thin sample materials (typically 0.1 to 6 mm).

THASYS is used for materials like plastics, composites and electrical insulation / interface materials. The measurement principle consists of generating a homogeneous thermal field with known heat flux through the thin samples.

THISYS is used for sheet materials of metals, alloys and high conductivity plastics with various filler materials. The measurement essentially determines the temperature gradient across the sample in the plane of the sample itself. THISYS can measure thermal conductivity up to 200 W/mK.



TRSYS: Building envelope- and wall-thermal resistance



When measuring isolation values of existing walls and building envelopes, TRSYS is the perfect tool.

It is a system for analysis of thermal resistance and thermal transmittance of building elements by in-situ measurement. It can be used for measurements according to ISO 9869, ASTM C1155 and C1046 standards.

In its standard configuration, the system is equipped with two heat flux sensors, two pairs of matched thermocouples for differential temperature measurements, as well as a programmed datalogger for data acquisition. It can also be configured with an optional LP02 pyranometer for measurement of influence of solar radiation.

