



Quick /

HC-10 Thermal Conductivity Tester

EKO

Specifications:

	HC-10	
Thermal Conductivity Range	VIP Sample:	0.001 to 0.015 W/m⋅K
	Homogeneous sample:	0.03 to 5.00 W/m•K
Method	Non-static transient Heat-up method	
Calibration	VIP Sample:	3 or 4 samples of the same structure but different thermal conductivity
	Homogeneous sample:	3 or 4 different standard samples
Repeatability	VIP Sample:	± 5% ± 0.001 W/m•K
	Homogeneous sample:	± 5%
Accuracy	Based on standard sample calibration	
Evaluation	Measurement of a sample can be classified (A,B or C) depending on the measurement result by setting a TC range (V1&V2)	
Display	Thermal conductivity, Temperature, Sample class A,B,C Black and white LCD with back light	
Operating Temp. Range	+10 to +40 °C	
Data Storage	99 measurement data and 20 calibration data	
Software	Data view and data management, Windows OS, English	
Interface	USB	
Standard sample (Attached to the Main Unit)	TEMPAX Glass, Acrylic and EPS	
Power, Power Consumption	AC adapter, AC100V to 240V 50/60Hz, DC24V Approx. 30W	
Size, Weight	W 250 x D 200 x H 85 mm, 4kg (Include Main Unit, Sensor Unit, and PowerSupply)	
Option: Standard Samples	Zirconia (for factory calibration Approx. 4W/m•K), Stainless SUS304 (for factory calibration Approx. 15W/m•K)	



Sensor Unit





Carrying Case

www.eko-asia.com www.eko-eu.com www.eko-usa.com



Quick Test & Easy Operation.

Measures within 60 seconds

Applications:

Quality assurance Production Material Qualification Material research and development

Materials:

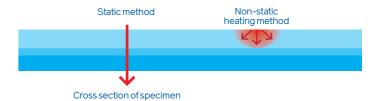
VIP

Rubber Plastics Ceramic Powder Glass



Features

- Standalone portable Thermal Conductivity tester
- Simple and easy measurement by placing the sensor on the sample
- Very fast measurement within 60 seconds
- Capable of measuring a wide range of materials
- Software available enabling operation, calibration and analysis through a PC

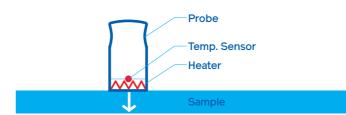


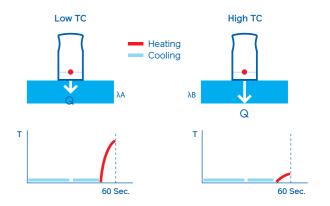
Difference from static method (Heat flow meter)

For measuring the thermal conductivity of a non-homogenous or layered sample a device which uses the the static method is recommended. In case of quick Λ , the thermal conductivity is calculated by heat flow at the specimen surface layer for a short time non-static heating measurement.

Principle

Heat loss is measured with the Sensor unit as Delta T which is inverse proportional to the material thermal conductivity.





When the amount of heat loss is small, the sample surface temperature is high

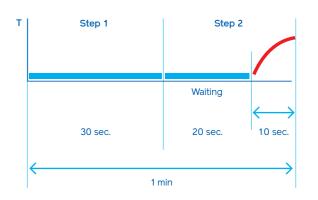
When there is a large heat loss, the sample surface temperature is low

Measurement Procedure

Step1:

Place the sensor unit on the cooling socket for 30 sec. **Step2**:

Place the sensor unit on the sample, then press the Start button to commence the measurment sequence. After 30 seconds the thermal conductivity will be displayed.



Evaluation of Measurement

For quick evaluation of a sample, the thermal conductivity threshold can be set. The measurement result will be evaluated as A,B or C and displayed on the LCD and LED indicators.



