

FireLine™ MODEL 1000 THERMAL CONDUCTIVITY INSTRUMENT



Specifications

Temperature range:	25°C to 1000°C
Measuring range:	0.03 to 1.0 W/mK
Specimen size:	
Thickness	12.7 mm
Width	152.4 mm
Length	152.4 mm
Displayed results:	K vs. T curve over entire range of test and tabular data
Environment:	Air (optional inert gas purge)
Loading time:	5 minutes
Test time:	2°C/minute
Accuracy:	± 7% (estimated)
Repeatability:	± 5%
Operation:	Automatic (PC not included)
Power:	115VAC, 60Hz, 6.25A 230VAC, 50Hz, 3.12A
Size:	63.5 x 40.6 x 35.6 cm
Weight:	45 kg

- ASTM E2584 Slug Calorimeter Method (single-sided configuration)
- Specific test programs for testing fire protective materials
- Applicable for testing general purpose insulating materials
- Fully automatic operation with built-in software

The FireLine™-1000 is a fully automated computer-controlled instrument specifically designed to measure the thermal conductivity of certain fire resistive materials and general purpose insulating materials. It uses a direct, absolute method that requires no calibration.

The instrument satisfies the methodology developed by a NIST lead consortium to study fire protective materials after 9-11. In an air atmosphere, these materials undergo dramatic chemical and structural changes at high temperatures. This device records the variation in thermal conductivity accompanying these changes. Multiple measurements on the same specimen allows the study of how reactions, phase changes, and mass changes affect material performance.

A single square-plate specimen is loaded into the instrument and the included Windows™ based software operates the unit and reports the results in real-time, with tabular and graphical data saved at the end of the test.

Easy loading furnace that heats the specimen from one face at a constant rate until the opposite face reaches a preprogrammed temperature.

