Basic Thermal Properties Testing Services

The objective of the testing services is to determine the basic thermal properties of materials.

1. Thermal Conductivity, Thermal Diffusivity, Specific Heat

At Axel Products, the basic thermal properties of thermal conductivity, thermal diffusivity and specific heat of solid materials in the range of 0.01 W/mK to 500 W/mK over temperatures ranging from -40C to 180C are measured using a transient plane source method The instrument used is manufactured by C-Therm Technologies as the TCi Thermal Property Analyzer. One standard 150 mm by 150 mm by 1.0 to 2.0 mm thick test slab of the material is required for each temperature condition. This test can be performed either at a single temperature, or in a series of up to five temperatures, ranging between –40 C and 200 C.

2. Thermal Expansion, Tg, Softening

A PerkinElmer Diamond Thermo-Mechanical Analyzer (TMA) is used to determine dimensional changes in materials as a function of temperature or time. It is used to measure changes in length, width, thickness and linear expansion of materials. Typically, thermal expansion experiments are performed from –40 C to 150 C, but can be performed over a broader temperature range.

General Pricing for Basic Thermal Properties Testing Services

Prices are shown in US Dollars

1. Thermal Conductivity, Thermal Diffusivity, Specific Heat

Thermal Conductivity, Thermal Diffusivity, Specific Heat

Single Temperature, 3 tests	250
Up to 5 Temperatures between –40 C and 200 C, 3 tests each	600

2. Thermal Expansion, Tg, Softening

Thermal Expansion by TMA

Basic: *From –40 C to 150 C, 3 tests*	275
Expanded: *From any one temp (> -180C) to any other temp. (< 550C), 3 tests*	350
Added Tg: *Determine Tg in addition to any Thermal Expansion Experiment*	75

June 2011. Pricing subject to change.

Notes:

a. These are typical thermal property tests. Feel free to request a proposal for other interests or specifications, or for custom part testing.
b. The data is delivered via e-mail in an ASCII format.
c. Customer data and materials will be retained for 1 year after initial data delivery.

Purchase Order, VISA, MasterCard, AMEX and Discover Card are accepted methods of payment.
Terms: NET 30 Days after Delivery of Data

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