

APPLICATION SHEET

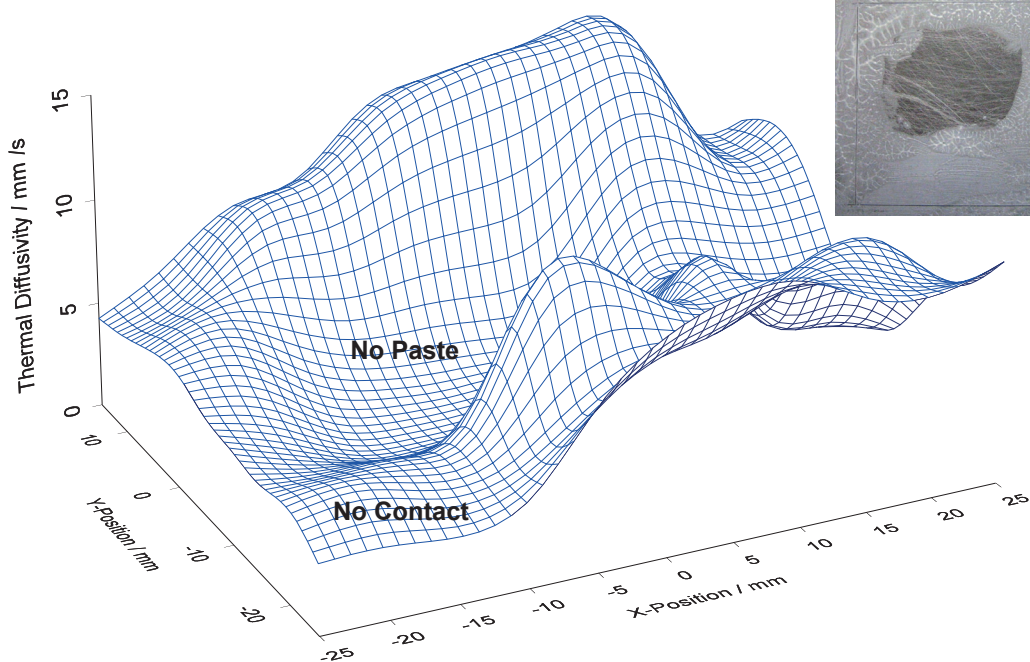
Inorganics · Electronics
LFA 467 HyperFlash® - MTX

Heat Transfer Paste

Introduction

A heat transfer paste is a thermal grease frequently used in electronics applications. It is the stuff generally put between a computer CPU and the cooler. It helps remove the heat generated in the active electronic component during operation. All modern PC CPUs produce a reasonable amount of heat. Therefore, almost all of the existing

computer systems need a heat sink with a fan. The properties and application of the heat transfer paste can have crucial influence on the heat transfer performance of the system. In-situ measurements on layer structures can yield fruitful information on the properties of the system. An MTX test with its two-dimensional resolution can help understand the influences of structural defects below the surface.



Test Conditions

Temperature range:	RT
Atmosphere:	Air
Sample holder:	MTX
Sensor:	InSb

Test Results

Presented in the figure are the results measured on a heat transfer paste sandwiched between two aluminium plates. It can clearly be seen that there are significant differences in the local effective thermal diffusivity. As can be seen from the photo (shown on top) taken after the sandwich was opened, the low thermal diffusivity results are caused by areas of missing paste, too much paste and bad mechanical contact between the plates and the paste.