

# THERMAL PASTE



# **GENERAL DESCRIPTION:**

The thermal paste is offered as an accessory to several Wavelength Electronics product lines to help ensure adequate thermal control during operation.

Comprised of silicone, carbon, and metal oxide components, it spreads easily for excellent surface coverage and thermal conductivity.

Placement on the product surface will vary with Wavelength product and heat sink model selected.

# **FEATURES:**

- Paste form
- Spreads easily
- Excellent thermal conductivity -up to 3.0 W/°C
- For use with multiple heat sink models
- Coverage area is 4" by 6" (100x150 mm)

### For Use With

PLD-5KCH	5 Amp Laser Diode Driver
PLD-10KCH	10 Amp Laser Diode Driver
All MPT Series	MP Temperature Controller
All MPL Series	MP Laser Diode Driver
LDTC 0520	0.5 Amp Laser Driver with Temp Control
LDTC1020	1.0 Amp Laser Driver with Temp Control
LDTC 2/2	2.2 Amp Laser Driver with Temp Control
HTC Series	HTC Temperature Controller

# APPLYING THE PASTE

Thermal paste should be applied thinly and evenly across the mounting area. Refer to the individual product manual to determine the best location for thermal paste application.

A single heat sink is available for a broad range of products (P/N: MULTI-HTSK). The drawings below illustrate coverage area on the Wavelength products listed:

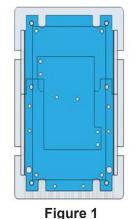
Figure 1 illustrates placement for the large model MPT and MPL series.

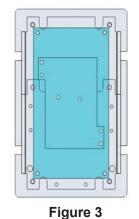
Figure 2 illustrates placement for the small model MPT and MPL series.

Figure 3 illustrates placement for the LDTC 2/2.

Figure 4 illustrates placement for the PLD chassis mount series, and LDTC xx20 models.

A heat sink for the HTC, not shown, is also available (P/N: HTCHEATSINK).





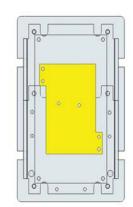


Figure 2 F

THERM-PST400-A Rev C

Figure 4

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### MATERIAL DATA AND SAFETY SPECIFICATIONS

## COMPOSITION

CHEMICAL NAME	% WEIGHT
Silicone Compounds	50
Carbon Compounds	20
Metal Oxide Compounds	30

### PHYSICAL PROPERTIES

**Melting Point:** 200 °F **Boiling Point:** > 300 °F Vapor Pressure: N/A Vapor Density: >1.0 Appearance & Odor: Viscous, white grease with no particular odor. Thermal Conductivity: 0.7-3.0 W/°C

Actual Thermal Conductivity value will depend upon the thickness and evenness of application.

## STABILITY AND REACTIVITY

This product is stable. Avoid strong acids, strong bases or halogens. Combination with alkals may produce combustible hydrogen gas. Hazardous polymerization is not likely to occur.

## HAZARD IDENTIFICATION

There are no hazardous components present.

## FIRST AID MEASURES

Inhalation: If adverse effects occur, proceed to an uncontaminated area. If breathing has been arrested, provide

artificial respiration immediately. Obtain immediate medical attention.

Skin: Wash thoroughly with soap and water for a minimum of 15 minutes. Contaminated clothing should

be removed immediately. If irritation persists, obtain medical attention.

Eye Contact: Wash thoroughly with water for a minimum of 15 minutes. If irritation persists, obtain medical

Ingestion: Drink two (2) large glasses of water. Do not induce vomiting. If a large amount has been ingested,

or if discomfort persists, obtain medical attention.

### FIREFIGHTING MEASURES

Flash Point: None. Auto-Ignition Temperature: N/A. LEL/UEL: N/A.

Fire Hazard: Non-combustible

**Extinguishing Media:** Standard dry chemical or carbon dioxide.

Use standard techniques with water and foam.

**Firefighting Instructions:** As in any fire, wear self-contained breathing apparatus (pressure-demand, OSHA/

NIOSH approved or equivalent) and full protective gear.

## **EXPOSURE CONTROLS & PERSONAL PROTECTION**

Wear chemical goggles, gloves, and other protective clothing. Provide safety and hygiene equipment consistent with all applicable federal, state, and local regulations.

# ECOLOGICAL, DISPOSAL, AND REGULATORY CONSIDERATIONS

Ecological: No information is available.

Disposal: Dispose of in accordance with all federal, state and local regulations.

Accidental Release: Do not touch spilled material. Stop leak, if possible without personal risk. Absorb with sand

or other non-combustible material. Collect spilled material in an appropriate container for disposal. Flush any residue to a sanitary sewer approved for chemical waste disposal.

Regulatory: No information is available.

### HANDLING AND STORAGE

Store below 70 °C or 200 °F. Store in a tightly sealed container. Do not store under pressure. Store in an inert atmosphere. Store away from materials designated incompatible. KEEP OUT OF REACH OF CHILDREN.

## **CERTIFICATION AND WARRANTY**

#### CERTIFICATION:

Wavelength Electronics (WEI) certifies that this product met it's published specifications at the time of shipment. Wavelength further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology, to the extent allowed by that organization's calibration facilities, and to the calibration facilities of other International Standards Organization members.

## WARRANTY:

This Wavelength product is warranted against defects in materials and workmanship for a period of 90 days from date of shipment. During the warranty period, Wavelength will, at its option, either repair or replace products which prove to be defective.

## WARRANTY SERVICE:

For warranty service or repair, this product must be returned to the factory. An RMA is required for products returned to Wavelength for warranty service. The Buyer shall prepay shipping charges to Wavelength and Wavelength shall pay shipping charges to return the product to the Buyer. However, the Buyer shall pay all shipping charges, duties, and taxes for products returned to Wavelength from another country.

## LIMITATIONS OF WARRANTY:

The warranty shall not apply to defects resulting from improper use or misuse of the instrument or operation outside published specifications.

No other warranty is expressed or implied. Wavelength specifically disclaims the implied warranties of merchantilability and fitness for a particular purpose.

### **EXCLUSIVE REMEDIES:**

The remedies provided herein are the Buyer's sole and exclusive remedies. Wavelength shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

### NOTICE:

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### SAFETY:

There are no user serviceable parts inside this product. Return the product to Wavelength Electronics for service and repair to ensure that safety features are maintained.

# LIFE SUPPORT POLICY:

As a general policy, Wavelength Electronics, Inc. does not recommend the use of any of its products in life support applications where the failure or malfunction of the Wavelength Electronics, Inc. product can be reasonably expected to cause failure of the life support device or to significantly affect its safety or effectiveness. Wavelength Electronics, Inc. will not knowingly sell its products for use in such applications unless it receives written assurances satisfactory to Wavelength Electronics. Inc. that the risks of injury or damage have been minimized, the customer assumes all such risks, and there is no product liability for Wavelength Electronics, Inc. Examples of devices considered to be life support devices are neonatal oxygen analyzers, nerve stimulators (for any use), auto transfusion devices, blood pumps. defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, ventilators of all types, and infusion pumps as well as other devices designated as "critical" by the FDA. The above are representative examples only and are not intended to be conclusive or exclusive of any other life support device.



WAVELENGTH ELECTRONICS, INC. 51 Evergreen Drive Bozeman, Montana, 59715

phone: (406) 587-4910 Sales and Technical Support

fax: (406) 587-4911

e-mail: sales@teamwavelength.com web: www.teamwavelength.com