NEOGRAF™ SOLUTIONS

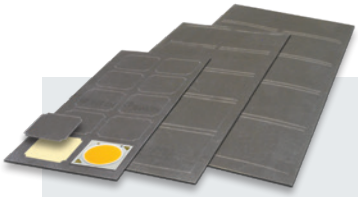
eGRAF®

HITHERM™ Thermal Interface Materials

ADVANCED THERMAL MANAGEMENT SOLUTIONS

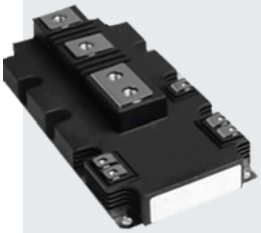
eGRAF® HITHERM™ high performance thermal interface materials (TIMs) are designed for long life, mission critical applications with extreme heat cycles. HITHERM™ TIMs are made of flexible graphite specifically engineered for demanding lighting, computing and power electronics applications.

- Consistent, **reliable thermal performance** enabling zero maintenance applications
- **Will not low or pump out** under any thermal extremes, thermal cycles, power again and power cycling or part orientation
- **No degradation in performance** from initial install and over the life of the application, reducing PM and improving MTTF
- **Assembly-ready** foil form factor eliminates dispensing and cleaning processes
- **Easy installation** removes the need for Burn-in or re-torque, enabling a single step install
- **"NASA certified"** minimal outgassing prevents fouling of optics in lighting applications



Chip on Board LED Engines

Custom LED Light Engines



Power Electronics Modules

CHARACTERISTIC	HT-1200	HT-2500	HT-C3200
TYPICAL APPLICATIONS	 Chip on Board LED devices Small light engines	 Telecommunications CPU/GPU thermal interface	 Motor drives Power inverters GPU thermal interface
MINIMUM CLAMPING FORCE	180 kPa • 30 PSI	90 kPa • 15 PSI	100 kPa • 15 PSI
SURFACE COMPENSATION @ 700 KPA (100 PSI)	Up to 0.021 mm roughness Near flat surface	Up to 0.015 mm roughness Near flat surface	Up to 0.030 mm roughness Up to 0.1 mm flatness compensation
MATERIAL COMPRESSION @ 700 KPA (100 PSI)	4% of starting thickness	6% of starting thickness	70% of starting thickness
OUTGASSING LOSSES TML[1]	<0.1%	1.3%	<0.1%

Notes: [1] E595 total mass loss (TML) test results of bare HITHERM™ TIMs

MATERIAL OPTIONS	DETAILS
COATING OPTIONS	Laminated with plastics or adhesives to meet dielectric and manufacturing requirements.
THICKNESS RANGE	From 0.127 to 0.51mm (varies depending on grade). See HITHERM™ Technical Data Sheets 318 and 319 for more details.
CERTIFICATIONS	Meets RoHS certifications.
FLAMMABILITY RATING	UL94V-0

Material Performance

When determining which grade and thickness of HITHERM™ TIMs will work for your application, the effective thermal impedance is the critical factor. The thermal impedance is the combination of the thermal resistance at the contact surfaces and the bulk resistance of the TIM. For additional information, please reference Technical Data Sheets 318 and 319 for more information.

Our global team of Applications Engineers are knowledgeable about graphite and applications spanning multiple industries. These include metallurgical casting, electronics, chemical, nuclear, defense/aerospace, solar, LED, semiconductor, and other high temperature processes.

Regardless of your product design phase (concept, prototyping, or mass production), we offer technical answers to some of your most challenging problems with a fast response time.

Please contact a NeoGraf Applications Engineer today at neograf.com/contact.

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