

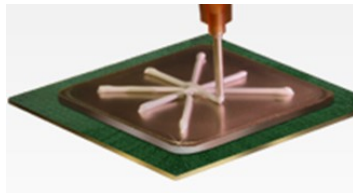
X23-7783D TECHNICAL DATA SHEET

Product description

X23-7783D, is a thermal interface material developed and manufactured by Shin-Etsu Chemical with ease of application in mind. Specifically formulated to include an application chemical to allow ease of screening and other application techniques. With a higher Thermal Conductivity coupled with lower Thermal Resistance exceeds thermal management requirements of high-performance semiconductor devices. Through superior heat dissipation, the X23-7783D allows electronic devices to remain cooler and increases their long term reliability.

Product characteristics

- Excellent thermal resistance (TR) and thermal conductivity (TC)
- Low viscosity at the time of application, easily applied via dispensing, stencil printing, or screen printing methods
- Stable homogeneous mixture for consistent thermal performance
- RoHS and REACH Compliant
- High volume production product from a proven industry leader Available world-wide through established supply chain networks



Packages

SEM's X23-7783D material is available in several cost effective packages offering unique advantages:

- **Syringes** offer most flexibility, with the ability to utilize the same product package for production and field requirements
- **Cartridges** can be utilized with either manual, automated or silk-screening equipment. The delivery system allows dispensing of the material, while protecting the integrity and exposure level of the unused portion.
- **Bulk** purchases with the lowest unit cost, are available for large scale production facilities where material is consumed at a rapid rate.
- **Shelf life** is one year from the date of manufacturing if in the original package un opened and stored properly. For reference only, not a specification.



General properties

Attributes	Typical Values
Color	Grey
Viscosity (Pa·s) (pre-flash) *	170
Viscosity (Pa·s) (post-flash) *	900
Thermal Resistance *** (mm ² -K/W)	7.3
Thermal Conductivity ** (W/m °K) (post-flash)	6.0
BLT (μm) (Thin—BLT) (20psi)	38

*See page 2

** Measured with hot disc method *** Measured with laser-flash

Packaging Description	X23-7783D
Syringes	0.5 gm, 1.0 gm
Cartridges	55 gm
Bulk	1 kg can
Custom Sizes Available	
Storage Conditions	32°F to 85°F



Caution

Shin-Etsu MicroSi (SEM) has been notified by customers that they were negatively impacted by using unauthorized and/or counterfeit thermal interface materials being sold as Shin-Etsu materials. Please note that Shin-Etsu Chemical Co., Ltd. And SEM, Inc. are not in a position to take any responsibility for the said unauthorized materials. Feel free to contact SEM, if you have any questions regarding this.

To ensure safety, follow the precautions stated in the material safety data sheet and technical references.

Typical values of different parameters have been shared in this sheet. It's the responsibility of the Purchasers to qualify the products for their respective applications. The contents in this document are subject to revision without notice to reflect latest data.

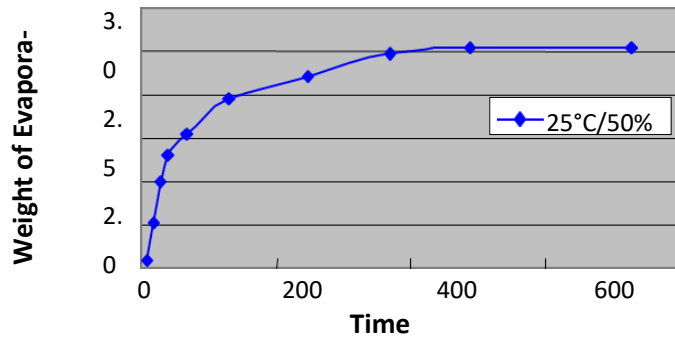
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Please contact: Shin-Etsu MicroSi
1.888.642.7674 www.microsi.com

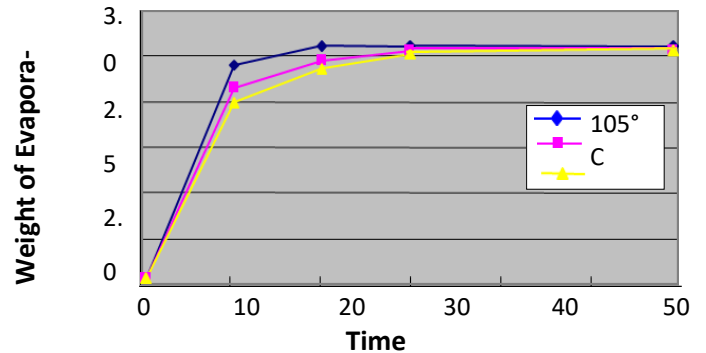
X23-7783D

In an effort to improve the application process, our X23-7783D thermal interface material utilizes an “Application Chemical” to reduce the viscosity of the material. This application chemical evaporates (flashes) out of the grease once exposed to the environment and /or upon heating, which allows the viscosity to increase to the final value.

Application Chemical

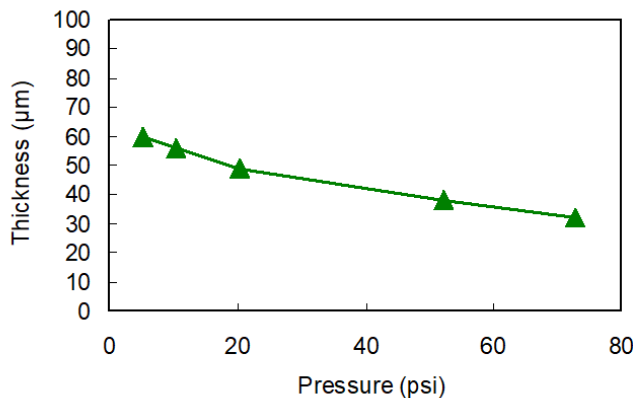


Application Chemical

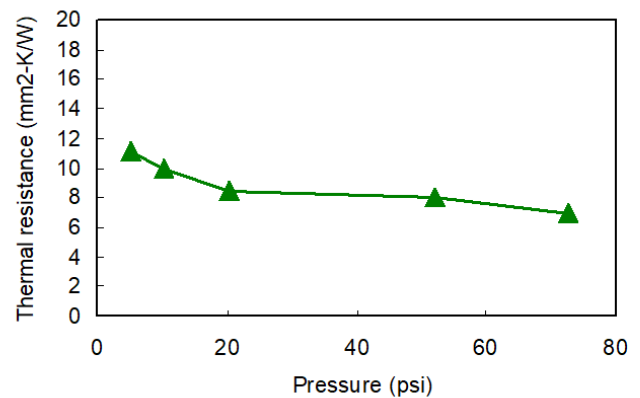


X-23-7783D Pressure vs. BLT&T.R.

X-23-7783D Pressure vs. Thickness



X-23-7783D Pressure vs. Thermal resistance



“WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.”



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