

Low-hardness high-thermally conductive silicone soft pad

TC-CA Series

NEW

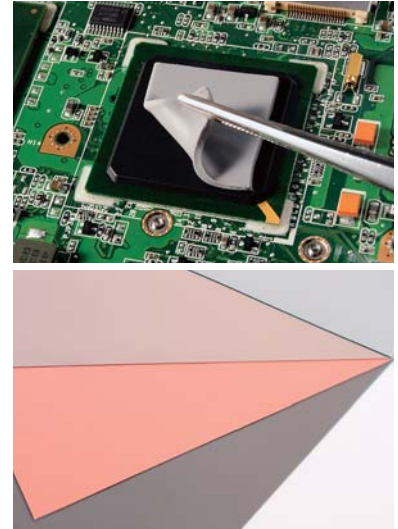
The newly developed series of products have both high thermal conductivity and excellent electrical insulation properties, which stem from Shin-Etsu's advanced polymer and thermally conductive filler composite material technologies.

Features

- Excellent cost performance
- High thermal conductivity
- Low-hardness that makes for good compressibility and a stress-relaxation property that can reduce stress to heat modules
- Excellent workability and processibility
- Low specific gravity

Applications

The main application of this new series of silicone soft pad products will be for countermeasures against the heat emanating from various electronics devices,
 1. notebook PCs 2. LED lighting 3. hybrid cars and electric cars etc.
 It meets demands for thinner and lighter weight device applications.



General Properties

Parameter	Grade	TC-100CAS-10	TC-100CAB-10	TC-100CAD-10	TC-100CAT-20
		"100" shows 1.0 mm in thickness.	"100" shows 1.0 mm in thickness.	"100" shows 1.0 mm in thickness.	"100" shows 1.0 mm in thickness.
Appearance		Dark gray	Pink	Light reddish purple	Gray
Sheet size	mm	300 × 400	300 × 400	300 × 400	300 × 400
Structure		Single layer	Single layer	Single layer	Single layer
Density	g/cm ³	1.9	2.2	3.0	3.2
Hardness Asker C		10	10	10	20
Dielectric Breakdown Voltage 1mm	kV	22	22	15	15
Thermal Conductivity *1	W/m-K	1.8	2.3	3.2	4.5
Thermal Resistance*2	°C/W	0.65	0.49	0.43	0.32
Flame Retardancy UL94		V-0 equivalent	V-0 equivalent	V-0 equivalent	V-0 equivalent
Thickness	mm	0.5, 1.0, 1.5, 2.0, 2.5, 3, 4, 5, 6, 7, 8, 9, 10	0.5, 1.0, 1.5, 2.0, 2.5, 3, 4, 5	0.5, 1.0, 1.5, 2.0, 2.5, 3, 4, 5	0.5, 1.0, 1.5, 2.0, 2.5, 3, 4, 5
Operating temp. range	°C	-40 - 150	-40 - 150	-40 - 180	-40 - 180

*1 Based on ISO-22007-2

(Not specified values)

*2 Based on Shin-Etsu method (Thickness: 1 mm)

Conventional Product	TC-HSV-1.4	TC-THS	TC-TXS
Thermal Conductivity*3	1.2	2.1	3.3

*3 based on ISO-22007-2

(Not specified values)

CAUTION

- The data and information presented in this catalog may not be relied upon to represent standard values. Shin-Etsu reserves the right to change such data and information, in whole or in part, in this catalog, including product performance standards and specifications without notice.
- Users are solely responsible for making preliminary tests to determine the suitability of products for their intended use. Statements concerning possible or suggested uses made herein may not be relied upon, or be construed, as a guaranty of no patent infringement.
- The silicone products described herein have been designed, manufactured and developed solely for general industrial use only; such silicone products are not designed for, intended for use as, or suitable for, medical, surgical or other particular purposes. Users have the sole responsibility and obligation to determine the

- suitability of the silicone products described herein for any application, to make preliminary tests, and to confirm the safety of such products for their use.
- Users must never use the silicone products described herein for the purpose of implantation into the human body and/or injection into humans.
- Users are solely responsible for exporting or importing the silicone products described herein, and complying with all applicable laws, regulations, and rules relating to the use of such products. Shin-Etsu recommends checking each pertinent country's laws, regulations, and rules in advance, when exporting or importing, and before using, the products.
- Please contact Shin-Etsu before reproducing any part of this catalog. Copyright belongs to Shin-Etsu Chemical Co., Ltd.