

FACT SHEET

ICT-TC-GFSP-SF-5012



Silicone-free TPE thermal pad with 3.0 W/mK conductivity, excellent electrical insulation, low outgassing, soft and compressible.



5 GAP FILLERS, PADS, SPACERS, SOFT-ULTRA-SOFT GEL SILICONE-FREE

DESCRIPTION

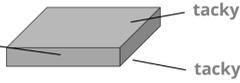
The **ICT-TC-GFSP-SF-5012 Series** is composed of a silicone-free, resin-based thermoplastic elastomer (TPE), offering very good thermal conductivity of 5.00 W/m·K while maintaining silicone's superior heat resistance and electrical insulation properties. This premium product has been shown to exhibit low molecular siloxane volatilization and very low total volatile gas, ensuring there are no electrical contact or contamination issues.

The **ICT-TC-GFSP-SF-5012 Series** is characterized by very good thermal conductivity combined with outstanding electrical insulation properties, based on advanced composite material technologies.

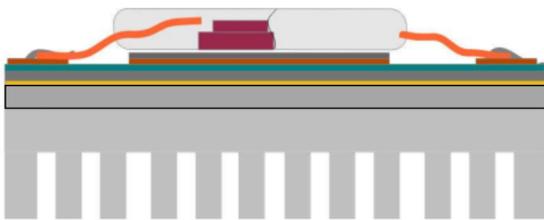
The **ICT-TC-GFSP-SF-5012 Series** is soft, flexible, and exhibits good springback behavior. Its low hardness ensures excellent compressibility, while its stress relaxation properties, low specific weight, and very good price-performance ratio are what make this material stand out.

The **ICT-TC-GFSP-SF-5012 Series** is available in material thicknesses ranging from 0.5 to 10.00 mm. Additional thicknesses are available upon request.

TYPICAL PROPERTIES

Product Configuration	Material structure
ONE - LAYER TYPE SILICONE FREE RESIN BASED THERMOPLASTIC ELASTOMER (TPE)	 tacky tacky
Color	Gray
Density	3.2 g/cm ³
Thermal conductivity	5 W/m ² K
Thermal impedance @ 20 psi	≤ 0.208 C°-in ² /W
Volume resistivity	≥ 1,00 × 10 ¹¹ Ω/m
Dielectric breakdown voltage	8 kV/mm
Hardness (Shore 00)	55
Compressibility @ 20psi	46 %

IMAGES



ICT-TC-GFSP-SF-5012 Profile

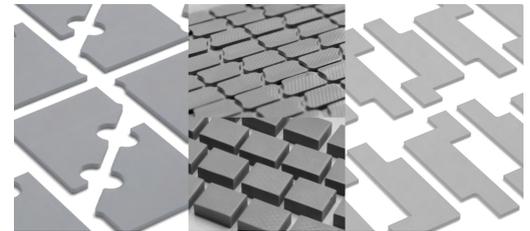


Image may differ from product

FEATURES

- › Made from a silicone-free, resin-based thermoplastic elastomer (TPE)
- › Good thermal conductivity with very low thermal resistance
- › Tacky surfaces for improved contact
- › Soft and flexible, with very good compressibility
- › Capable of operating under low applied pressure
- › Very good electrical insulation (UL 94 V-0 certified)
- › ICT-TC-GFSP-SF-5012 Series is environmentally compliant with RoHS 2.0, halogen-free, and REACH standards

DELIVERY FORMS / APPLICATIONS

- Applicable to optical and sensitive electronic components
- Optoelectronic industry applications
- Viscous surface for enhanced adhesion
- HDDS / Netcom products
- Electric vehicles (EVs) and new energy battery applications
- 5G base stations and infrastructure
- Wearable devices and related electronics

