

Thermotech TE Vacuum Paste

CHEMICAL PRODUCT

PRODUCT NAME: Thermotech TE Vacuum Paste

MATERION MATERIAL NUMBER: 14930A

COLOR: Gray

OPERATING TEMPERATURE RANGE: 10°C - 160°C

VAPOR PRESSURE @ 20°C: 2×10^{-9} Torr

DENSITY: 1.97 g/cc

PROPERTIES

Thermotech TE is a silver-filled, electrically conductive high-vacuum compound specifically manufactured for the sputtering target industry.

- Exhibits excellent thermal & electrical conductive properties
- Will not hinder DC sputtering operation
- Able to withstand high vacuum operating ranges
- Contains no silicone and is non-hardening
- Absorbs grease and chemical impurities on metal surfaces
- Cleans up easily with solvents such as methanol or acetone
- As a viscous sealant, it fills small scratches & surface imperfections better than Indium foil
- Dramatically increases target cooling

AVAILABILITY

Thermotech TE is available in 50g kits as Materion SAP [Material Number 14930A](#). Each kit:

- Contains enough compound for a 5" x 15" rectangular or 10" diameter round cathode sealing area
- Includes utensils for applying and spreading the compound

HOW TO APPLY

Thermotech TE is applied along the contact surfaces of the sputtering target and cooling plate in systems that are indirectly water-cooled. (Note: Do not apply directly to ceramic or porous metallic targets. Such targets should be bonded to a backing plate before installing.)

Mix the compound well before beginning. Apply a small amount to the side of the sputtering target that will contact the cooling plate surface. Using the provided scraper, evenly spread the compound so that the contact surface is completely covered. DO NOT APPLY TOO MUCH: a layer approximately .015" thick is sufficient for most applications. Using an appropriate solvent, clean away any excess compound. Install the target, making sure there is firm contact between the target and the cooling plate. (NOTE: in some systems it may be easier, or necessary, to apply the compound to the cooling plate surface instead of the target.) After use, any residual compound may be scraped away or wiped clean with solvent.