Thermally Conductive

Gap Fillers and Electronic Component Heat Sink Transfer Media

US-TC-6012

Thermally Conductive Gap Filler – Offset to Bergquist 2000

US-TC-6012 is a high performance thermally conductive liquid gap filling silicone. It develops to a soft form in place elastomer suitable for coupling hot PC board components to heat sinks.

Two part 1:1 mix that cures at room temperature or for a rapid cure expose to heat for 5 minutes. Supplied in a dual syringe that requires a dispensing gun.

Product Features

- No odor or byproducts
- Precision mix with supplied packaging
- High 2.0 W/m-K thermal conductivity
- Platinum cure

Typical Applications

Thermal dissipation for electronic components separated by a gap from an available heat sink

Makes a bulk form in place heat sink itself.

Typical Properties

Uncured

	Part A	Part B	Mix
Color	White	Pink	Pink
Viscosity, cps	150,000	150,000	150,000
Specific Gravity	2.8	2.8	2.8

Consistency mixed: paste

Working time, mins at Room Temperature: 60

Curing time, mins at room temperature: 120

Curing time, mins at 150C: 5 minutes

Cured 72 Hrs at Room Temperature

Hardness, Shore 00:	70
Thermal conductivity:	2.0 W/m-K
Dielectric Constant, 100 Hz:	7
Dielectric Strength:	500 v/mil
Volume Resistivity:	10^{12} Ohms/M

Mixing Instructions: The preferred method of mixing and application is through a mixing nozzle attached to the syringe.

Depth of cure vs time: Very firm deep section cures are formed in 120 minutes.

Packaging: Dual syringe with mixing nozzle.

Solids: 100% solids, contains no solvents

Adhesion: Primerless adhesion to most plastics, metals and typical substrates.

Service temperature: -65C to +260C continuous

Limitations: Allow to fully cure before putting assembly into service.

Handling and safety: This is a Platinum Cure system product. The catalyst can be deactivated by exposure to sulfur containing compounds like thiols, sulfides, sulfates, organic rubber containing sulfur, nitrogen containing compounds like amines, amides, imides, azides, tin metals or compounds, or tin cured RTV's.For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 12 months from the ship date when stored in a cool dry area below 70°F.

US-TC-6015

Thermally Conductive Gap Filler

US-TC-6015 is a high performance thermally conductive liquid gap filling silicone. It develops to a soft form in place elastomer suitable for coupling hot PC board components to heat sinks.

Two part 1:1 mix that cures at room temperature or for a rapid cure expose to heat for 5 minutes. Supplied in a dual syringe that requires a dispensing gun.

Product Features

- No odor or byproducts
- Precision mix with supplied packaging
- High 2.2 W/m-K thermal conductivity
- Platinum cure

Typical Applications

Thermal dissipation for electronic components separated by a gap from an available heat sink

Makes a bulk form in place heat sink itself.

Typical Properties

Uncured

	Part A	Part B	Mix
Color	White	Pink	Pink
Viscosity, cps	250,000	250,000	250,000
Specific Gravity	3.0	3.0	3.0

Consistency mixed: paste

Working time, mins at Room Temperature: 60

Curing time, mins at room temperature: 120

Curing time, mins at 150C: 5 minutes

Cured 72 Hrs at Room Temperature

Hardness, Shore 00:	80
Thermal conductivity:	2.2 W/m-K
Dielectric Constant, 100 Hz:	7
Dielectric Strength:	500 v/mil
Volume Resistivity:	10^{12} Ohms/M

Mixing Instructions: The preferred method of mixing and application is through a mixing nozzle attached to the syringe.

Depth of cure vs time: Very firm deep section cures are formed in 120 minutes.

Packaging: Dual syringe with mixing nozzle.

Solids: 100% solids, contains no solvents

Adhesion: Primerless adhesion to most plastics, metals and typical substrates.

Service temperature: -65C to +260C continuous

Limitations: Allow to fully cure before putting assembly into service.

Handling and safety: This is a Platinum Cure system product. The catalyst can be deactivated by exposure to sulfur containing compounds like thiols, sulfides, sulfates, organic rubber containing sulfur, nitrogen containing compounds like amines, amides, imides, azides, tin metals or compounds, or tin cured RTV's.For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 12 months from the ship date when stored in a cool dry area below 70°F.

US-TC-6021

Thermally Conductive Low Viscosity Self Leveling Gap Filler

US-TC-6015 is a high performance thermally conductive liquid gap filling silicone. It develops to a soft form in place elastomer suitable for coupling hot PC board components to heat sinks.

Two part 1:1 mix that cures at room temperature or for a rapid cure expose to heat for 5 minutes. Supplied in a dual syringe that requires a dispensing gun.

Product Features

- No odor or byproducts
- Precision mix with supplied packaging
- High 2.0 W/m-K thermal conductivity
- Platinum cure

Typical Applications

Thermal dissipation for electronic components separated by a gap from an available heat sink

Makes a bulk form in place heat sink itself.

Typical Properties

Uncured

	Part A	Part B	Mix
Color	White	Pink	Pink
Viscosity, cps	14,000	14,000	14,000
Specific Gravity	2.8	2.8	2.8

Consistency mixed: paste

Working time, mins at Room Temperature: 60

Curing time, mins at room temperature: 120

Curing time, mins at 150C: 5 minutes

Cured 72 Hrs at Room Temperature

Hardness, Shore 00:	70
Thermal conductivity:	2.2 W/m-K
Dielectric Constant, 100 Hz:	7
Dielectric Strength:	500 v/mil
Volume Resistivity:	10^{12} Ohms/M

Mixing Instructions: The preferred method of mixing and application is through a mixing nozzle attached to the syringe.

Depth of cure vs time: Very firm deep section cures are formed in 120 minutes.

Packaging: Dual syringe with mixing nozzle.

Solids: 100% solids, contains no solvents

Adhesion: Primerless adhesion to most plastics, metals and typical substrates.

Service temperature: -65C to +260C continuous

Limitations: Allow to fully cure before putting assembly into service.

Handling and safety: This is a Platinum Cure system product. The catalyst can be deactivated by exposure to sulfur containing compounds like thiols, sulfides, sulfates, organic rubber containing sulfur, nitrogen containing compounds like amines, amides, imides, azides, tin metals or compounds, or tin cured RTV's.For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 12 months from the ship date when stored in a cool dry area below 70°F.

US-TC-720
Thermal Joint Compound

US-TC-720 is a high temperature thermal joint compound developed to fill gaps between heat sinks and substrates.

Fills microscopic voids between surfaces.

Retains its properties at elevated temperatures.

Works well in manual and automatic dispensing equipment.

Product Features
- Non hardening.
- High temperature rating of 600F.
- Non-organic thermal joint compound.
- Solvent free (meets California requirements)

Typical Applications
- Semiconductor assemblies
- High temperature heat sink compound
- Electric heating elements

Color: White

Service Temperature: -65°C to 315°C

Typical Properties

Uncured

Viscosity, cps: 100,000
Specific Gravity: 2.1
Consistency: light paste
Dielectric Strength: 225 volts/mil
Thermal conductivity: 0.735

Method of Application: Dispense product onto part and mate parts. Be sure not to squeeze all of the product out of assembly.

Solids: 98% solids, contains no solvents

Curing: Does not cure.

Limitations: None

Packaging: Available in 3ox tube, 6oz Semco, 8oz container, 10.3 oz cartridge. This product is also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant can irritate eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 5 years from the ship date when stored in a cool dry area below 70°F.