United Adhesives
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ThermoFill TF2520

High Thermally Conductive Interface Filling Material

Typical Properties			
Property	**Unit**	**Value**	**Test Method**
Color / Component		White / Grey	Visual
Viscosity at 25°C	Pa.s	210	ASTM D2196
Thixotropic index		3	ASTM D2196
Density	Gram /cc	2.9	ASTM D792
Property as Cured			
Color		Light Grey	Visual
Hardness	Shore A	40	ASTM D2240
Thermal Conductivity	W/m-K	2.3	ASTM D5470
Heat Capacity at 25°C	J/g-K	1.0	ASTM D1269
Dielectric Constant	@1000Hz	4	ASTM D150
Dielectric Strength	Volt/mil AC	> 400	ASTM D149
Volume Resistivity	Ohm-cm	> 10E+14	ASTM D257
Coefficient of Thermal Expansion	ppm/C	140	IPC-TM-650
Temperature Usage	Degree ℃	-80 to 200	TGA
Cure Profile			
Cure at 125°C	Min	60	DSC
Cure at 150°C	Min	30	DSC
Pot Life at 25°C	Hr	24	Viscosity double
Cure out gassing	Weight %	< 0.1%	TGA

These figures are only intended as a guide and should not be used in preparing specifications.

Characteristics

ThermoFill TF2520 is a high thermally conductive interface gap filling material. It is a non-slump, addition-curing, one-component silicone that cures at elevated temperature to a soft rubber with excellent thermal conductivity. The cured material provides low thermal stress for thermal cycles. TF2520 are dispensable and printable.

Special Features and Benefits

- High thermal conductivity
- Almost constant properties from –45 to 180 ℃
- Low modulus for stress compliance
- Low bleeding, low volatile
- TF2520 can have preloaded 7 mil glass bead if required.

Typical Applications

- Automotive electronics
- Semiconductor and Telecommunications
- Between high heat power device and heat sink
- Thermally conductive vibration dampening
- Couple thermal stress while dissipating heat

TF2520 cures to form a low modulus gap filling material that is not for structure bonding purpose. For bonding purpose thermally conductive adhesive, please select the United Adhesives products ThermoBond 3517 or 3519.

Processing Instruction

Important! ThermoFill TF2520 is platinum cure system. Please keep applied surface clean and avoid using this material on any surface that contains sulfur, amine, phosphorous, organo-metals, acid, etc. because these contaminants could inhibit the cure of the material.

For the package in a container (not in a cartridge), to ensure homogeneity of the material, the component must be stirred thoroughly before it is removed or processed in order to uniformly disperse any fillers that might have settled during storage.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives Inc.

Storage

ThermoFill TF2520 has a shelf life of at least 6 months when stored below 4℃ in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

Addition curing ThermoFill TF2520 silicone compound contains neither toxic nor corrosive substances that might require special handling precautions. General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives Inc.