

ThermoFill TF2612

Thermally Conductive Filling and Potting Material

Typical Properties			
Property	Unit	Value	Test Method
Color / Component A		White	Visual
Color / Component B		Grey	Visual
Mixing Ratio	By volume or weight	1:1	
Density (as mixed)	Gram /cc	2.4	ASTM D792
Viscosity as Mixed at 25°C	Pa.s	55	ASTM D2196
Property as Cured			
Color		Light Grey	Visual
Hardness	Shore OO	45	ASTM D2240
Thermal Conductivity	W/m-K	1.2	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
Temperature Usage	°C	-80 to 200	TGA
Cure Profile			
Cure at 25°C	hr	3	DSC
Cure at 125°C	Min	15	DSC
Pot Life at 25°C	Min	15	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.

Processing Instruction

Important! TF2612 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.

Only components A and B with the same lot number may be processed together! For the package in a container (not in a cartridge), to ensure homogeneity of the material, the components must be stirred thoroughly before they are 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.

The figures listed in this datasheet are in good faith with the present state of our knowledge, but should not be used in substitution for user's tests. We reserve the right to alter product constants within the scope of technical progress or new developments. The suggestions for use in this sheet should be checked by preliminary trials because the user's processing conditions are out of our control. The suggestions for use should not be in substitution of user from the obligation of investigating the possibility of infringement of third parties' patents or rights. This datasheet does not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.

Characteristics

TF2612 is a high thermally conductive gap filling or potting material. It is a high purity, flowable, addition-curing, two-component silicone that cures at room temperature or elevated temperature to a very soft rubber with excellent thermal conductivity. The cured material provides very low thermal stress for thermal cycles. TF2612 is dispensable.

Special Features and Benefits

- High thermal conductivity
- High purity for electrical insulation
- Fast cure profile and ambient curable
- Almost constant properties from -70°C to 180°C
- Very low modulus for stress compliance
- Low bleeding, low volatile

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

TF2612 has a shelf life of at least 12 months when stored between 5°C and 30°C in the originally sealed container. After cure it forms a low modulus material that is not for structure bonding purpose. For strong bonding thermally conductive adhesive, please select the United Adhesives products TC2817 or TC2808.

Storage

TF2612 has a shelf life of at least 12 months when stored between 5°C and 30°C 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 TF2612 silicone 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.