Tflex™ CR550

2-Part Dispensable Gap Filler

PRODUCT DESCRIPTION

With 5.4 W/m-K thermal conductivity, Tflex™ CR550 is at the forefront of thermal performance for a two-part, cure in place dispensable gap filler. This dispensable gap filler minimizes stress on components during assembly while providing the reliability of a traditional thermal pad. Tflex™ CR550 has been designed for reliability, intended to pass stringent vertical shock and vibe requirements of the automotive industry.

The 1:1 mix is dispensable through a wide variety of dispensing equipment. It is an A+B putty material that cures in place after dispensing and mixing to perfectly fill the gap. The experts at Laird can help design the system that is right for you.

Tflex™ CR550 is a soft, compliant, high thermal conductivity dispensable gap filler providing the lowest thermal resistance and highest reliability available.

FEATURES AND BENEFITS

- Thermal Conductivity 5.4W/mK
- Dispensable and Compliant
- Easily reworkable
- Ideal for large gaps
- Meets ROHS and REACH requirements

APPLICATIONS

- Telecom base stations
- Graphic chips
- Microprocessors
- High-power automotive electronic controls

MAIN PROPERTIES

TYPICAL PROPERTIES	VALUE	TEST METHOD
Composition	Two-part ceramic filled dispensable silicone gap filler	
Color	Part A: Blue Part B:White	Visual
Flow rate (50cc cartridge with 17 elements static mixer, 90psi, 1min)	6 g/min	Laird Method
Pot Life	1 hour minimum	Laird Method
Mix ratio	1:1	
Shelf Life	6 month (preliminary)	Laird Method
Cure conditions	14 hours at 25°C	Laird Method
PROPERTIES AFTER CURING		
Thermal Conductivity	5.4 W/mK	Hot Disk
Density	3.25 g/cc	Helium Pycnometer
Hardness (30sec)	55 Shore 00	ASTM D2240
Minimum bond line thickness	120 µm	Laird Method
Thermal Resistance at 1mm, 50°C, 50psi	1.348°C.cm²/W	ASTM D5470

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PROPERTIES AFTER CURING		
TYPICAL PROPERTY	VALUE	TEST METHOD
Temperature Range	-40°C to 200°C	
UL Flammability Rating	V-0	UL
Dielectric Breakdown Voltage@1mm	11kVAC	ASTM D149
Volume Resistivity	2.7 10^{14} Ω.cm	ASTM D527
Outgassing (TML/CVCM)	0.08% / 0.04%	ASTM E595

Note: data for design engineer guidance only; observed performances may vary in application; thermal expansion variation is to be taken into consideration. Engineers are reminded to evaluate the material in application.

PACKAGING

TYPE	FILL VOLUME	FILL WEIGHT
50cc side-by-side cartridge (2x25cc)	50 cc	154 g
200cc side-by-side cartridge (2x100cc)	210 cc	683 g
400cc side-by-side cartridge (2x200cc)	382 cc	1242 g
600cc separate cartridges (2x600cc)	1200 cc	3900 g
1-gallon pail x2	8000 cc	13kg x2
5-gallons pail x2	12300 cc	20kg x2

SAMPLING

TYPE	FILL VOLUME	FILL WEIGHT
50cc side-by-side cartridge (2x25cc)	50 cc	154 g