

Gelest® PP2-TC03

Thermally Conductive Gap Filler

Gelest® PP2-TC03 is a two-part ultra-high elongation thermally conductive silicone gap filler. The excellent thermal conductivity of this product increases thermal transfer between an electronic component and its heat sink. This product has some adhesion to substrates, but a primer is recommended at times for adhesion.



Features & Benefits

- Thermally conductive
- Soft & compressible
- Low flow and heat-curable
- No cure by-products
- Platinum addition cure

Applications

- Thermal transfer for electronic devices and battery modules
- High power electrical devices
- Cure in place thermal interlayer
- Flexible electronics

Typical Properties*, **	Units	Value
Mix Ratio A:B		1:1
Color Part A		Black
Color Part B		Black
Color Mix		Black
Viscosity, Uncured Mix	cP	Paste
Thermal Conductivity	W/mK	3.1
Elongation	%	41.4
Tensile Strength	MPa	0.61
Durometer	Shore A	50
Specific Gravity		2.8

* The properties reported are typical values and are intended as a guide for design and not intended for use in establishing specifications.** Cured at 100°C/1h

Processing, Fabrication, and Handling

MIXING AND DEAIRING | Using a clean spatula, hand mix Part A prior to weighing our product for use. Make sure that the filler is fully dispersed. Repeat this process for Part B.

At the specified mix ratio by weight, weigh Parts A & B into a wide-mouth mixing container. Then mix manually or via a mechanical method such as centrifugal mixing. The generation of too much heat during the mixing process may initiate the cure of the product.

For lab use. Alternative mixing methods can be used, but as an example, we suggest first mixing the Parts A & B manually followed by mixing on a centrifugal mixer at 800 rpm, 10-55 mm Hg pressure for 1 minute and 45 seconds followed immediately by 15 seconds at 1500 rpm. After mixing the product should be deposited carefully into place avoiding air entrapment. If used between and electronic device and a heat sink, apply pressure between the two as necessary to allow flow of the paste between the two.

CURING | Recommended cure of the product is 1 hour at 100°C in a forced-air oven. NOTE: Pouring into a heavy enclosure or mold containing a component of high mass may require a longer cure time to allow internal components to heat up.

POT LIFE | When using the product, pot life based on snap time is typically > 2 hours at 25°C. The maximum expected pot life at this temperature has not yet been determined.

COMPATIBILITY | Some chemicals, cured polymeric materials, and plasticizers can cause cure inhibition for this product. Examples may include exposure to sulfur-containing materials such as polysulfides or polysulfones, phosphorus-containing materials, organotin-containing materials, plasticizers leached out from lab gloves by solvent, solder flux residues, and nitrogen-containing chemicals like primary or secondary amines. If any chemical or material is suspected of retarding or impacting the cure of the product, it is recommended that the product be cured in absence of the suspected chemical, plastic, surface, etc. to determine if there is an interaction impacting the cure.

HANDLING AND SAFETY | Users should refer to the safety data sheet for any hazards associated with this product. Proper PPE should be used with this product including, at minimum, safety glasses, and disposable lab gloves.

USABLE LIFE AND STORAGE | It is estimated that this product will have at least 6 months of shelf life when stored at 25°C and humidity levels below 65% with containers tightly closed. Partially used or filled containers purged with dry nitrogen after opening should ensure the longest shelf life for this product.

Gelest Inc. | Morrisville, PA 19067 | (215) 547-1015 | www.gelest.com | tech@gelest.com

The information and recommendations in this technical data sheet (hereinafter "INFO") are presented in good faith and are believed to be correct. Gelest, Inc. makes no representations or warranties as to the accuracy or completeness of the INFO. INFO is supplied upon the condition that the person(s) receiving the INFO will make their own determinations as to the suitability of this product in the intended use. Gelest, Inc. in no event whatsoever will be responsible for damages of any nature resulting from the use or reliance upon the INFO or the product(s) to which the INFO refers. Nothing contained herein is to be construed as a recommendation to use any product(s), process(es), equipment or formulation(s) in conflict with any patent. Gelest, Inc. makes no representation or warranty, expressed or implied, that the user will not infringe any patent. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular application, or of any other nature are made hereunder with respect to the INFO or the product(s) to which the INFO refers.