



COMPOUND SILVER 402

July 2015

PRODUCT DESCRIPTION

COMPOUND SILVER 402 is an electrically conductive, silver filled epoxy adhesive recommended for bonding, and sealing electronic applications which require a combination of good mechanical and electrical properties. This two-part, smooth paste formulation of refined pure silver and epoxy is free of solvents and extraneous additives. It develops strong, durable, electrically and thermally conductive bonds and coatings between many dissimilar materials including metals, ceramics and plastic laminates. COMPOUND SILVER 402 cures quickly at room temperature and can be used as a "cold solder" for heat sensitive components where hot soldering is impractical. It can also be used in the assembly and repair of electrical modules, printed circuits, wave guides, flat cable and high frequency shields. This adhesive complies with the requirements of NASA's Outgassing Specification.

Physical Properties

Color:	Silver
Solids, %:	100
Specific Gravity:	2.5
Viscosity, cps @ 25°C, After Mixing:	Smooth Paste
Operating Temperature Range, °C:	-60 to 125
Hardness, Shore D:	85
Thermal Conductivity, BTU-in/Hr-Ft ² °F:	42
Coefficient of Expansion, cm/cm °C:	49 x 10 ⁻⁶

Handling Characteristics

Mix Ratio by Weight, Resin to Hardener:	100 to 6.0
Pot Life, 20 Gram Mass @ 25°C:	75 Minutes
Cure Schedule @ 25°C:	18 Hours
Cure Schedule @ 65°C:	2 Hours
Cure Schedule @ 100°C:	30 Minutes
Cure Schedule @ 120°C:	15 Minutes

Typical Values after Various Cure Schedules

Bond Line	Volume Resistivity	Tensile Shear
Cure Schedule	Ohm-Cm	Al/Al, psi
15 Mins @ 120°C	0.0002	1710
30 Mins @ 100°C	0.004	1500
2 Hours @ 65°C	0.006	1000
24 Hours @ 25°C	0.03	700

Storage

Store below 25°C out of sunlight and in original unopened containers. Refer to packaging specific quote for shelf life information.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

The product for which the data provided herein are furnished for informational purposes only and are believed to be accurate and reliable. Nevertheless, Henkel Corporation cannot and will not assume responsibility for the results obtained by others over whose production methods we have no control. Thus, it is the user's responsibility to determine the suitability of this product for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling, storage, disposal and use thereof. In light of the foregoing, **HENKEL CORPORATION SPECIFICALLY DISCLAIMS ANY AND ALL WARRANTIES EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND FREE FROM CLAIMS OF THIRD PARTY PATENT INFRINGEMENT, ARISING FROM THE SALE, POSSESSION, HANDLING, STORAGE, DISPOSAL, TRANSPORTATION OR USE OF THIS PRODUCT. HENKEL CORPORATION SPECIFICALLY DISCLAIMS ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING LOST PROFITS.** Neither the product, nor the data or discussion herein of various processes for which, are to be interpreted as an express or implied license under any Henkel Corporation patents. Henkel Corporation recommends that any and all proposed commercial application(s) using this product be evaluated for reproducibility in the exact manner and on the production equipment with which it is intended to be used before repetitive commercial production use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications of Henkel Corporation, or under which Henkel Corporation is licensed.