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SPI Supplies will be closed on the following dates: Monday, December 26th and Monday, January 2nd.
Wishing you a joyous holiday season with peace & cheer in the New Year!

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Silver Paste Plus 30 g Tube:

Chemical Symbol: Ag

CAS #: 7440-22-4

Atomic Number: 47

Atomic Weight: 107.8682

Color: Silver

Melting Point: 961.78°C (1763.2°F)

Silver Paste Plus is a high purity, uniform, viscous silver particle suspension, ideal for SEM use, especially for the mounting of porous samples where capillary action would be a problem. Although this product requires a longer drying time than all other silver paint products, its very high conductivity and absence of "wicking" into porous samples makes it the mounting medium of choice for many SEM laboratories worldwide.

We also can report a considerable amount of data on the physical and mechanical properties of the cured silver films that result from the use of the SPI Supplies Silver Paste Plus™.

"Commercial" message:

We try very hard to not appear to be too "commercial" but in this case we must make two points:

- The SPI Silver Paste Plus has 72% silver solids. If you see a paste for a lower price, chances are, the silver solids content is lower as well! The SPI product is high purity silver where as a lower purity silver invariably has associated with it a lower price as well.
- There are high costs associated with the "tubing" of products in small quantities. It is much cheaper, in terms of packaging, to offer the paste in a wide mouth jar, which happens to be the package of choice by others. But after the cap is removed several times, the carrier, which is somewhat volatile, dries out, and to the point that the bulk of the product can not be used. But with the SPI Silver Paste Plus in a squeeze tube, our customers never had this problem.

SPI Silver Paste Plus is packaged in a metal squeeze tube for ease of handling, convenient application, and long shelf life after first use. Unlike products packaged in a wide mouth jar, the SPI Silver Paste Plus will not dry out into a hard "brick" after just a few uses. The viscosity is comparable to a typical toothpaste; should the need arise to "thin down" to some degree the paste so that it has a lower viscosity, we would recommend using the SPI Supplies [Silver Paint Thinner](#).

SPI Silver Paste Plus was originally developed for the problem of bonding substrates to heater heads for uniform temperature distribution over large areas, such as in deposition of thin film oxide superconductors. In the process, we created an even better product for SEM sample preparation.

The unique characteristics of SPI Silver Paste Plus have led to its use in areas outside of SEM. If you too contemplate usage of this product in areas outside of SEM, for example, to "glue" down wafers to heater heads or to use for the attachment of leads, be familiar with the properties of this material and some of the recommended ways it should be used. Also be certain to do extensive testing to validate the appropriateness of Silver Paste Plus for your own non-SEM application.

Drying conditions:

SPI Silver Paste Plus was formulated to be an air drying product. Just how long it will take to dry completely will depend on the thickness of the paste that is deposited. The drying can be speeded up with the application of heat and if this is done, we would suggest a heating rate of not faster than 1 C°/minute in order to avoid "bumping". It is important that the carrier be allowed to exit the silver layer by diffusion so as to not otherwise disrupt the silver layer.

Silver Paste Plus 30 g Tube

Item Number 05063-AB

Availability In Stock

Quantity	Price/EA
1 to 9	\$148.83
10 and up	\$133.95

Quantity [Add to Cart](#)

⚠ OK-SPI - Excepted Quantity

Documents

[Safety Data Sheet](#)

[Technical Note](#)

High temperature limits:

Although the melting point of silver metal is reported to be 961.78°C (1763. 2°F), from a practical standpoint, one never comes close to this temperature in terms of use, because in addition to the well known oxidation and sulfiding that occurs when heated in air, what is not generally known is that even in vacuum, the metal starts to sublime on the order of 400°C (752°F) and by 500°C (932°F), the sublimation rate is sufficiently great that one can not go higher without running the risk of causing problems to their vacuum system (some would say this critical temperature is lower). If you have the need for this type of product at higher temperatures, we refer you to [SPI Platinum Paint](#). Just remember that the price per gram of Pt is roughly 100 times that of Ag, so don't be too shocked at the high price of the equivalent kind of product in platinum!

Cryogenic applications:

The SPI Silver Paste Plus is often times used for the attachment of leads that are then exposed to cryogenic temperatures. However one must realize that the strength of such bonds is not the greatest but it is sufficient, at least in a good number of instances, to do the needed job.. We are often times asks "will it work" and our own feeling is that while there are reasons why one would wish it would work better, the problem is that there just does not seem to be any other alternatives. So it "works" for at least some researchers because it is the best that there is.

UN# 1993

Hazard Class: Flammable Liquid 3

Packing group: II

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