

SPI Supplies Conductive Carbon Tapes, as well as being conductive and adhesive have almost no discernible structure and provide the ideal background against which to view your whole specimen. Use of the tapes also greatly reduces the background x-ray counts, giving greater accuracy and lower detection limits for your EDS work. Whether you are imaging or analyzing your specimen, the effect is just like dark field microscopy.

SPI Supplies® Brand carbon tape features exclusive plastic core!

Carbon tape is not all the same. Not only are the adhesives not all the same, but check out the cores. SPI tape has been wound onto a white plastic core so as not to generate particulates in a clean room environment. Compare the clean SPI tape with the unraveling and deteriorating cardboard core used by our competitors! And you don't pay extra for this value-added feature when shopping at SPI Supplies.

6 mm wide tape:

This extra narrow tape has been introduced to meet the demands of those working with UHV systems who want to reduce the amount of exposed organic surfaces in their systems. And many SEMs users will find the new narrow tape, in some ways, to be more convenient, than the wider tapes. Because we anticipate that this product will have wide use in clean environments and clean rooms, it is wound on a lint-free plastic core (instead of the more common paper based (and linting) core). All of the SPI carbon tapes are offered with this new white plastic lint-free non-linting core.

Other applications for the tape:

It has been reported that the SPI Carbon Tape is the ideal adhesive for affixing an electrode to a STM sample holder. It has just the right "tac" and conductivity for this application.

SPI Supplies® double sided conductive carbon tape is not the same as the sheet product but on roll form. The surface has a slightly less perfect surface smoothness and the EDS spectrum is not as "clean" with respect to other elements.



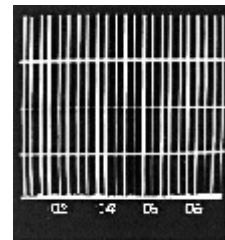
We are sometimes asked about the temperature range of use. We would be reluctant to recommend use above 130° C (266° F) outside the SEM or use within the SEM over 100°C (212° F). After heating, the adhesive will have lost at least some of its "tac" for holding something new but anything already being held should retain at least some of its original adhesive strength. Above 140° C, the adhesive will start to decompose and convert to a carbonized residue.

For use at low temperatures, the adhesive bond should maintain its basic properties at least to -20° C (-4° F) and depending on the stress being put on the bond, it would be much lower in temperature as well.

Just remember that SPI Supplies can not give any guarantees as to what kind of experience you will find in your particular application so be sure to do the appropriate level of testing should this be important to you.

Important advantages of carbon tapes:

- Enable the mounting of samples without contamination from either silver paint or carbon paint.
- Enable the mounting of highly porous or other absorbent samples without distortion caused by liquid being pulled into the sample.
- Provide good conductivity.



**EDS Scan of
Carbon Tape**

Suggested storage conditions:

For short term storage, that is, less than a year or so, room temperature storage is just fine. But if you have stockpiled a quantity, or have purchased a large amount to take advantage of quantity pricing, we would suggest storing the excess under refrigeration. These are organic materials and at room temperature can, under certain circumstances, start to lose some of their "tac".

Spool dimensions

All SPI Supplies double sided adhesive conductive carbon tapes are shipped on 3" (76 mm) diameter plastic spools and can be dispensed from any standard tape dispenser for 3" tapes. Since we are the primary manufacturer of carbon tapes for ESD and microscopy applications, we can supply the tape on any size spool a customer might request (but with substantial minimum orders).

Carbon Conductive Double Sided Adhesive Tape

Resistivity: < 5 ohms/square

Dimensions: 8mm wide x 0.16mm thick x 20 meters long

Surface approaches cover glass smoothness and for UHV work, these sheets are considered UHV "compatible" because there is virtually no deflection of the vacuum reading when a control sample is inserted into a UHV system.