

10 SEM, TEM, STM Supplies

SEM Specimen/Stub Adhesives

A listing of many different adhesive methods for attaching specimens to SEM mounts.



Colloidal Graphite

A suspension of pure, fine colloidal graphite in water or in isopropanol based solution. To form a conducting dry film of graphite on a variety of materials.

C107	Colloidal graphite - aqueous base	500g
C126	Colloidal graphite - isopropanol base	500g

Silver Paint

An air drying paint containing silver flakes. Dries to form a conducting film that is ideal for sample mounting.

S269	Silver paint	10g
S270	Silver paint	50g

Silver Paint Thinners

A thinner to reduce the thickness of our silver paint S066 to make thin conductive tracks on the specimen for microprobe work.

S271/1	Silver Paint Thinners	25ml
S271	Silver paint thinners	100ml

Silver Epoxy Adhesive

A two part silver filled epoxy adhesive providing a conducting joint and bond. *Silver content 70%*. Information sheet provided with each pack.

S055	Silver epoxy adhesive	pack of 10g
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Conducting Carbon Cement (Leit-C)

A suspension of very fine carbon particles in a volatile carrier. Suitable for forming a conducting film bond between specimen or carbon disc to stub.

C198	Carbon cement (Leit-C)	30g
C198/1	Thinners for Leit-C	30ml

Leit-C Plast

A plasticine like material with low outgassing properties suitable for use in the high vacuum of the SEM. Leit-C Plast is a conductive material requiring no additional coating and is suitable for many applications in specimen preparation.

C199	Leit-C-Plast	15g
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Tempfix

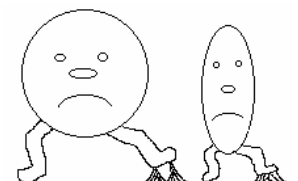
A thermoplastic adhesive that when applied to a heated stub at approximately +40°C yields a sticky surface suitable for holding specimens. It dries quickly to a very smooth surface and remains stable under the SEM.

T328	Tempfix	set
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Microstik

A clear adhesive for mounting small particles. Provides an ultrathin base when applied to the SEM specimen mount. Dries quickly and is non-conductive

M167	Microstik solution	14ml
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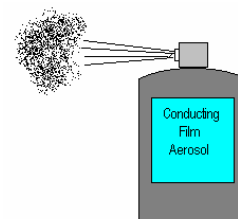


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Conducting Film Aerosol

A rapid method of spraying a conductive film onto SEM specimens such as pieces of biological tissue. Effects are not permanent so it is ideal for rapid examination in the SEM.

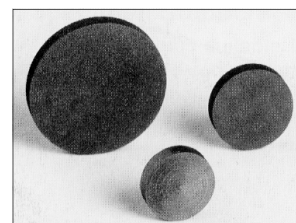
C212 Conducting film aerosol 397ml can



Carbon Discs

A range of discs 3mm thick with diameters of 12.5mm, 15mm or 25mm for mounting specimens in the SEM.

C304/10 Carbon discs 12.5mm Ø pack of 10 **C305** Carbon disc 15mm Ø
C305/10 Carbon discs 15mm Ø pack of 10 **C306** Carbon disc 25mm Ø
C306/10 Carbon discs 25mm Ø pack of 10



Conductive Carbon Adhesive Discs

For **SEM stubs**. An improvement on double sided tape. These new doubly adhesive carbon based discs ensure good electrical connection whilst retaining the benefits of a quick mounting method.

C263/N 9mm Ø pack of 100
C249/N 12mm Ø pack of 100
C252/N 25mm Ø pack of 51



Sulphur-Free Conductive Carbon Discs

Adhesive discs with low background for microanalysis

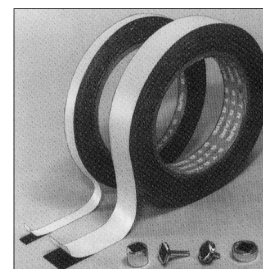
C272 Sulphur-free conductive carbon tabs 12mm Ø pack of 120



Double Sided Sticky Carbon Tape

Highly conductive tape for SEM and EDS applications. The double adhesive and conductive design permits quick mounting of samples without using liquid or colloidal adhesives. The tape is relatively solid and non-porous and does not absorb small samples. Thickness is 0.16mm.

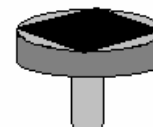
C261 Carbon tape 8mm x 20m long each
C277 Carbon tape 12mm x 20m long each
CXXX Carbon tape 20mm x 20m long each
C278 Carbon tape 50mm x 20m long each



Conductive Carbon Adhesive Sheet

For SEM or EDS we have available double sided carbon sheet for eliminating background X-rays. When cut to size it is easy to place on SEM stubs and is contaminant free.

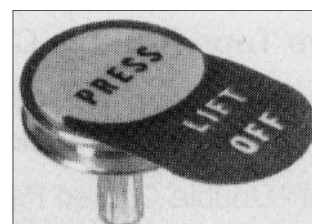
C206 Carbon conductive adhesive sheet 5 x 12cm pack of 10



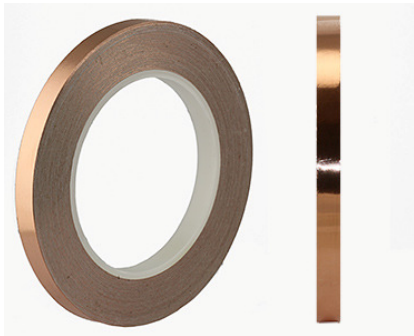
Sticky Tabs

Sticky tabs may be affixed to most types of stubs. Once affixed to the top of a stub simply remove the peel-off tab to leave a 1/2" (12.7mm) Ø layer of adhesive to which small specimens can be fixed, or impressions such as fingerprints can be made in the adhesive for examination. Non conducting and the strong silicone adhesive does not outgas in the vacuum. The adhesive can be removed with acetone.

T199 Sticky tabs pack of 100



Copper SEM Tape

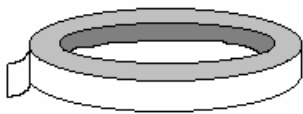


Single sided highly conductive copper strip with pressure sensitive adhesive backing. Ideal for static charging problems using SEM/FIB applications. 30 metre rolls. Total tape thickness 0.06mm

T617 Copper tape single sided 3mm x 30m **T618** Copper tape single sided 6mm x 30m
T619 Copper tape single sided 10mm x 30m **T188** Copper tape single sided 12mm x 30m
T620 Copper tape single sided 20mm x 30m

Double sided highly conductive copper tape with acrylic adhesive on both sides. Ideal for mounting samples directly on sample stubs and establishing an earthing path.

T614 Double sided conductive copper SEM tape 6mm x 33m Total tape thickness 0.085mm
T615 Double sided conductive copper SEM tape 12mm x 33m
T616 Double sided conductive copper SEM tape 20mm x 16.4m



Aluminium Tape

Two sizes of aluminium strip with pressure sensitive adhesive backing. Ideal for conductive connections etc.

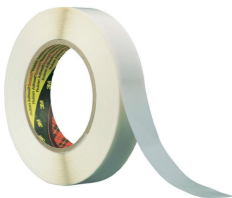
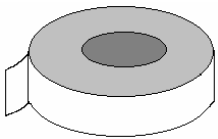
T189 Al tape 12mm x 55m x 0.09mm per roll **T189/1** As T189 but 0.13mm thick
T190 Al tape 25mm x 55m x 0.09mm per roll **T190/1** As T190 but 0.13mm thick



Magic Tape

This 3M tape is transparent when affixed to objects and makes amending and updating documents easy. It is ideal for making small labels being easy to type or write on and is invisible on photocopies.

T191 Magic tape 12mm x 66m per roll
T523 Magic tape 25mm x 66m per roll



Double Sided Tape

A thin double sided sticky tape in two widths suitable for mounting specimens and for general SEM work.

T063 Double sided tape 12mm x 66m per roll
T064 Double sided tape 38mm x 66m per roll

Silver Conducting Adhesive Sheet

Highly electrically conductive sheet 5 x 12 x 0.16cm thick suitable for cutting and sizing to samples for SEM.

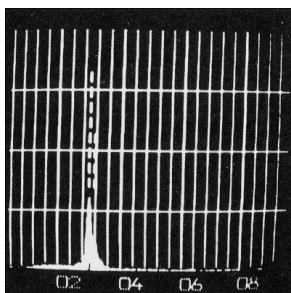
- Little outgassing under vacuum
- Doesn't absorb or penetrate specimens

S331 Silver conductive sheet pack of 5

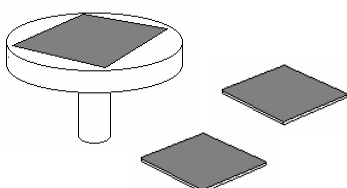
Silicon Chip Specimen Supports

Si-chips are opaque, of low electrical resistance and have surface properties equal to glass. They are chemically inert and make good substrates for growing or mounting cells or ferritin particles. They are useful for determining resolution and contrast capabilities of the "in-the-lens" SEMs equipped with high brightness electron emitters. Si-chips are precleaned before packing.

S332 4" (10cm) silicon wafer diced into approx. 270 chips 5 x 5mm



EDS spectrum of silver sheet S331

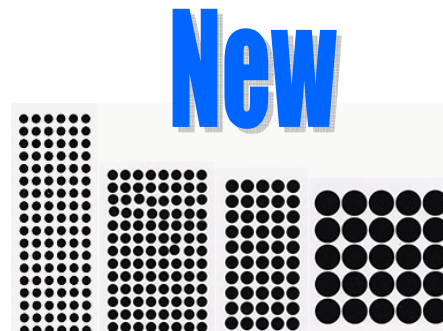


High Purity Conductive Double-Sided Adhesive Carbon Tabs

These high purity carbon tabs are especially developed for **SEM/EDS applications**. The material used is fully transparent for EDS with only trace amounts of Al and Si. The material is constructed using a non-woven liner coated on both sides with a conductive, carbon filled pressure sensitive acrylic adhesive. Total thickness of the material is approximately 150µm with an adhesive thickness of 45µm on both sides. The adhesive used has a high adhesion strength to metals, plastics, ceramics, wafers, rubber, wood, glass, paper, and small particles or fibres. The conductivity of the carbon tabs is lower than the conductivity of double sided copper tape or the double sided conductive Lift-N-Press tabs, but it is still fully compatible with SEM/EDS applications. **Ideal for Gunshot Residue work.**

Main Features and Benefits

- Thin material; 150µm total with 45µm on each side of a 35µm non-woven carrier
- Plastic liner on both sides
- Useable temperature range -20°C to + 60°C
- Low outgassing rates
- Fully EDS transparent with high purity for EDS applications
- High strength thin adhesive (2x45µm) combined with high tackiness
- Long shelf life and can be stored in a refrigerator
- Resistance 50K-200K



The tabs are supplied on a clear plastic sheet with a white plastic liner tab. Available as 6mm, 9mm, 12mm and 25mm diameter.

To use, lift the tab from the clear backing sheet, press the sticky surface to the mount, then peel away the white liner tab, leaving the adhesive exposed. Mount the sample on the exposed adhesive. **Alternatively**, the white liner tab can be removed, the stub pressed on the exposed carbon tab and the clear plastic lifted off. The use of sharp pointed tweezers helps to lift of the tabs and liner. The carbon tabs can be easily removed with isopropanol, ethyl acetate, ethanol or acetone.

The 6mm Ø carbon tabs are for use with small samples on any size stub

The 9mm Ø carbon tabs are compatible with 9.5mm Ø JEOL stubs

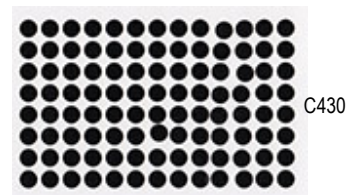
The 12mm Ø carbon tabs are compatible with 12.7mm Ø pin stubs, 12.2mm Ø JEOL stubs and 15mm Ø Hitachi stubs

The 25mm Ø carbon tabs are compatible with 25.4mm Ø pin stubs, 25mm Ø JEOL stubs and 25mm Ø Hitachi stubs

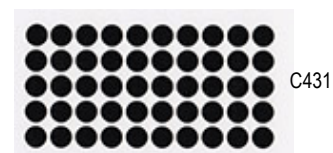
C429 High purity conductive double-sided adhesive carbon tabs **6mm Ø** pack of 108



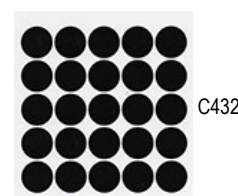
C430 High purity conductive double-sided adhesive carbon tabs **9mm Ø** pack of 104



C431 High purity conductive double-sided adhesive carbon tabs **12mm Ø** pack of 100



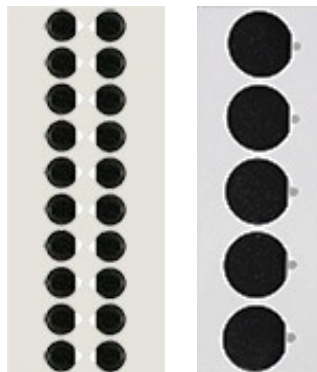
C432 High purity conductive double-sided adhesive carbon tabs **25mm Ø** pack of 50



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Super Smooth Conductive Double Sided Adhesive Carbon Discs

High Purity tabs developed for imaging and analysis applications of particularly fine powder and fibre samples. The adhesive used is fully transparent for EDS analysis with only trace amounts of Al and Si. **Super smooth and highly conductive**. Total thickness of the material is 110µm with an adhesive thickness of 40µm on each side. Exhibits high adhesion to metals, plastics, ceramics, wafers, rubber, wood, glass, paper and small particles or fibres. Supplied on a clear plastic sheet with a white plastic liner tab.



C433

C434

- Low outgassing
- Temp range -20°C to +60°C
- Long shelf life and can be stored in a refrigerator

To use: lift the tab of the clear backing sheet, press the sticky surface to the mount, then peel away the white liner tab, leaving the adhesive exposed. Mount the sample on the exposed adhesive. Alternatively, the white liner tab can be removed, the stub pressed on the exposed carbon tab and the clear plastic lifted off. The use of sharp pointed tweezers helps to lift off the tabs and liner. The carbon tabs are easily removed with isopropanol, ethyl acetate, ethanol or acetone.

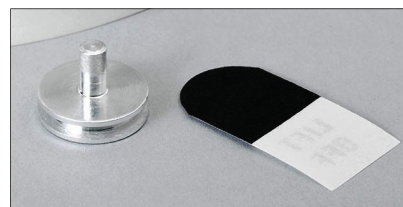
C433 12mm carbon tabs are compatible with 12.7mm Ø pin stubs, 12.2mm Ø JEOL stubs and Ø15mm Hitachi stubs. Pack of 100

C434 24mm Ø carbon tabs are compatible with 25.4mm Ø pin stubs, 25mm Ø JEOL stubs and 25mm Ø Hitachi stubs. Pack of 50



Conductive Carbon Adhesive Discs

Conductive carbon adhesive tabs approximately 12.5mm diameter with a thin film of strong adhesive. Over 99% transparent to EDS with very small amounts of nickel (0.6%) and copper (<0.3%). For small samples, tabs can be cut to the desired size before removing the tab from the backing sheet.



C445 Conductive carbon adhesive discs
Roll of 250

Super Smooth Double Sided Adhesive Carbon Tapes

The material is identical to the material used for the super smooth carbon tabs with one difference; the tapes are self-wound with a thin white liner on one side. The tape can be shaped into custom forms, strips and cut-outs. Available with 5mm, 8mm, 12mm and 20mm width by 20m long. To use: Cut the required length of carbon tape. Cut to shape if needed. Remove the white liner from one side and adhere to tape to the sample support. The use of sharp pointed tweezers helps to lift the liner of the adhesive. Remove the top liner and stick sample to the tape. The carbon tape can be removed with isopropanol, ethyl acetate, ethanol or acetone.



C436

C435

C437

- C435** Super smooth conductive double sided adhesive carbon tape 5mm x 20m
- C436** Super smooth conductive double sided adhesive carbon tape 8mm x 20m
- C437** Super smooth conductive double sided adhesive carbon tape 12mm x 20m
- C438** Super smooth conductive double sided adhesive carbon tape 20mm x 20m

Non-conductive Double Sided Adhesive Discs

Non-conductive double sided tabs are useful for AFM, LM and SEM applications where conductivity is not a requirement. We offer **two types**:

- 1) **C679** Lift-N-Press **premium** adhesive tabs 12.5mm Ø with a thin film of strong adhesive. To use simply lift the tab off the backing sheet, press the sticky surface to the mount and peel back the tag. The adhesive can be removed with isopropanol or acetone Compatible with 12 and 15mm Ø AFM discs, 12mm mica discs, 12.7mm pin stubs. 12.2mm JEOL stubs and 15mm Hitachi stubs. Pack of 100
 - These stubs have a super-strength thin adhesive (50µm)
 - Smoother surface for better particle adhesion
 - Lower outgassing and longer shelf life
- 2) **C680** D12 **economy** 12mm Ø adhesive non-conductive adhesive tabs, effective and cost efficient. To use lift the protective tab to lift off the sheet and press onto sample stub. Compatible with 12 and 15mm Ø AFM discs, 12mm mica discs, 12.7mm pin stubs. 12.2mm JEOL stubs and 15mm Hitachi stubs. Pack of 100

1 CXXX Premium 12.5mm adhesive tab



2 CXXX D12 Economy 12mm adhesive tab

