

The background is a dark blue gradient with various chemical structures overlaid in a lighter blue, semi-transparent style. These structures include aromatic rings, siloxane chains, amide bonds, and other organic molecules, creating a scientific and industrial atmosphere.

M Chemicals

ONE COMPANY... MANY SOLUTIONS

PRODUCTS PRESENTATION

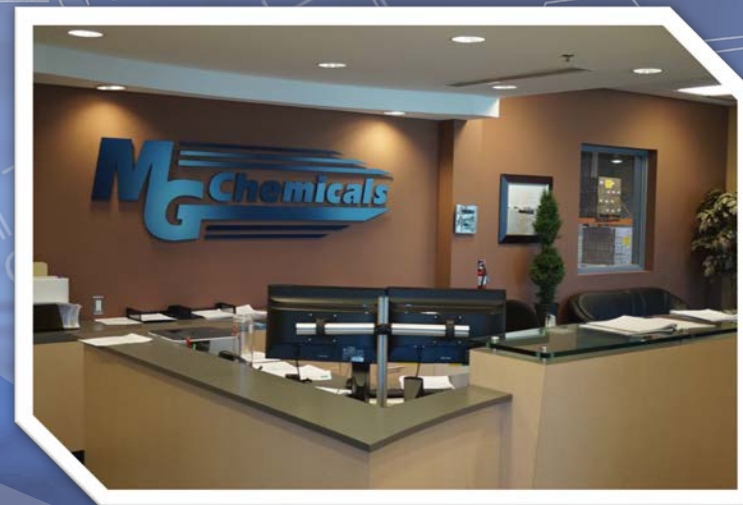
About MG Chemicals Ltd.



- ➡ Founded in 1955, with Headquarter in Surrey, B.C. manufacturing plant in Burlington, Ontario, Canada and European distribution facility in Manchester, UK
- ➡ Incorporated in the UK and AU
- ➡ Master distribution: Australia, Brazil, China, India, South Korea, and Ukraine
- ➡ ISO9001:2008 Registered Quality system
- ➡ Global distribution network
- ➡ Multinational OEM users

Our Values

- ➡ Integrity: doing what we commit to
- ➡ Honesty: a principal on maintaining strong relationships
- ➡ Respect: treating everybody with respect
- ➡ Innovation: turning ideas into value added solutions
- ➡ Continuous Improvement: perfecting our offering never ends
- ➡ Quality: everything we produce meets the highest standards
- ➡ Communication: we listen, we care, we serve



What we do

- ➔ Manufacturer and wholesaler of chemical products for the electronics and associated industries
- ➔ Continual research and development of technologically advanced products for the electronics industry
- ➔ Broad product offering with nine different line segments
- ➔ Technical support > Qualified technicians to support our user base
- ➔ Responsiveness to industry trends
- ➔ World class inside and outside customer service
- ➔ Quick and accurate shipping



Research & Development

- ➡ In House Chemists formulating, testing and overseeing products manufacturing
- ➡ 2 Laboratories with state of the art equipment
- ➡ Dedicated scientists monitoring regulations and compliance
- ➡ Client specific product formulation
- ➡ Continuous product development
- ➡ Rigorous testing
- ➡ Relatively short product development times



Our Areas of Expertise

- ➡ Potting and Encapsulating Compounds
- ➡ EMI/RFI Shielding
- ➡ Conformal coatings
- ➡ Electrical conductivity management
- ➡ Thermal conductivity management
- ➡ Adhesives
- ➡ Sealing and Gasketing
- ➡ Electronics maintenance



The Markets We Serve

- ➡ Aerospace & Defense
- ➡ Automotive
- ➡ Consumer Electronics
- ➡ Marine
- ➡ Medical
- ➡ Renewable Energies
- ➡ Telecommunications
- ➡ Transport
- ➡ Utilities



Our Products

EMI/RFI Shielding



THREE CHEMISTRIES

- ✓ Acrylic
- ✓ Water Based
- ✓ Epoxy

FOUR PIGMENT SYSTEMS

- ✓ Carbon
- ✓ Nickel
- ✓ Silver Coated Copper
- ✓ Silver

Potting and Encapsulating Compounds



- ✓ Black 2:1 / 1:1
- ✓ Translucent
- ✓ Water Clear
- ✓ Flexible
- ✓ Thermally Conductive
- ✓ High Temperature
- ✓ Flame Retardant

Combinations of above

Conformal Coatings



FOUR CHEMISTRIES

- ✓ Acrylic
- ✓ Silicone
- ✓ Polyurethane
- ✓ Epoxy

Our Products

Specialty Adhesives



- ✓ General
- ✓ Cyanocrylates
- ✓ Electrically Conductive
- ✓ Thermally Conductive
- ✓ Fast Set
- ✓ Structural
- ✓ RTV Silicones

1-Part Epoxy Adhesives



- ✓ General purpose
- ✓ Electrically Conductive
- ✓ Thermally Conductive

Specialty Greases



- ✓ Lubricating
- ✓ Electrically conductive
- ✓ Thermally conductive
- ✓ Dielectric

Our Products

Solder & Accessories



- ✓ Wire >>Leaded / Lead-Free
- ✓ Solder pastes
- ✓ Fluxes > Liquid / Paste
- ✓ Flux removers
- ✓ Desoldering Braids
- ✓ Tip tinner

Cleaning Products



- ✓ Dusters
- ✓ Cold Spray
- ✓ Electronics Cleaners
- ✓ Flux removers
- ✓ Contact Cleaners
- ✓ Specialty Cleaners
- ✓ Wipes
- ✓ Swabs
- ✓ Brushes

RTV Silicones



- ✓ Adhesives
- ✓ Sealants
- ✓ Potting Compounds
- ✓ Primers

Our Products

3d Printer Supplies



Filaments

- ✓ ABS
- ✓ PLA
- ✓ Wood
- ✓ PETG
- ✓ HIPS
- ✓ Fluorescent
- ✓ Glow in The Dark
- ✓ Thermochromic

Accessories Chemicals

Prototyping and Circuit repair



- ✓ Copper Clad Boards
- ✓ Presensitized Boards
- ✓ Conductive Pens
- ✓ Conductive Prints
- ✓ Overcoat Pens

Solvents



- ✓ D-Limonene
- ✓ Acetone
- ✓ IPA
- ✓ Dimethyl Carbonate
- ✓ Ethyl Lactate
- ✓ MAK
- ✓ MEK
- ✓ Toluene
- ✓ Xylene

EMI/RFI Shielding

ACRYLIC CONDUCTIVE COATINGS

Our AR series Acrylic Conductive Coatings are durable acrylic lacquers pigmented with highly conductive fillers. They provide effective EMI/RFI shielding over a broad frequency range and are an easy-to-use solvent-based system with no heat cure necessary. The cured coatings are smooth, hard, abrasion resistant, and adhere strongly to plastics. They are available in four pigments: carbon, nickel, silver-coated copper, or silver, so customers can choose the most cost-effective solution for their application.

Features & Benefits:

- Provides effective EMI/RFI shielding over a broad frequency range
- Smooth, durable, and abrasion resistant
- Choice of four conductive pigments: carbon, nickel, silver-coated copper, or silver.
- Easily applied by spray or brush
- Quick dry time, no heat cure required.
- Service temperature range -40 to 120 °C.
- Mild solvent system.
- Strong adhesion to acrylic, ABS, polycarbonate, and other injection molded plastics.
- Excellent adhesion to wood and ceramics
- HAP Free; Does not contain toluene or xylene.
- Available in aerosol format and liquid formats

841AR / 842AR / 843AR Common Applications

- Repairing damage to existing shielding
- Conductive undercoat for electroplating
- Providing electric continuity for circuits
- Creating grounded surfaces
- Medical Equipment
- Military equipment
- Scientific equipment
- Test Equipment
- Communication devices
- Cellphones, laptops, PDA's
- Consumer electronics
- Automotive applications
- Aerospace applications
- Drones and other RC vehicles

EMI/RFI Shielding - Acrylic

838AR - Total Ground™ Carbon Conductive Coating

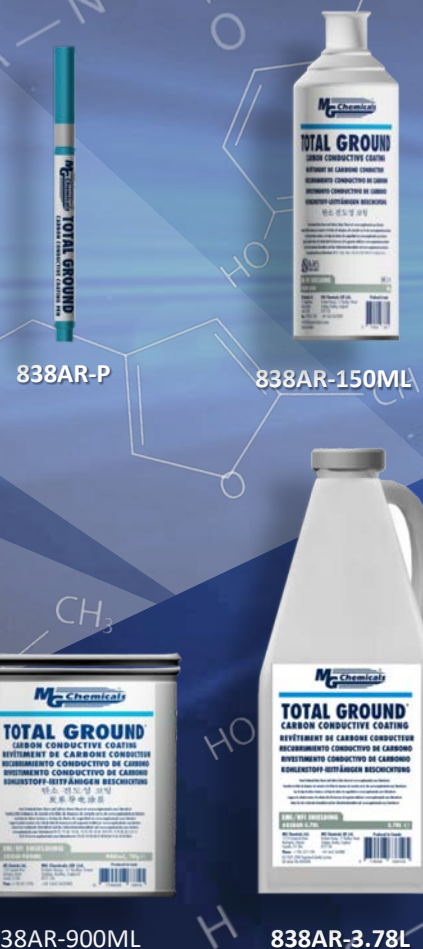
A one-part durable acrylic lacquer pigmented with a highly conductive carbon powder. It provides good static conductivity, excellent low frequency shielding,

Specific Features & Benefits:

- Cost effective conductive coating
- Provides >52 dB of RFI shielding at frequencies <1 MHz
- Volume resistivity of 0.33 Ω -cm
- Strong corrosion resistance, suitable for marine environments

Specific Applications:

- Creating a grounded working surface
- Shielding control of pickup cavities on electric guitars and other electronic instruments
- Shielding metal detectors and other devices that malfunction in the presence of metal
- Other low frequency RFI shielding applications
- Acting as a conductive adhesive for electrostatic flocking
- Providing a conductive inner coating in picture tubes
- Acting as a resistor in prototype circuits
- Providing electrical conductivity to almost any surface



EMI/RFI Shielding - Acrylic

841AR - Super Shield™ Nickel Conductive Coating

A one-part durable acrylic lacquer pigmented with a highly conductive nickel flake.

Features & Benefits:

- UL Recognized (File # E202609)
- Volume resistivity of $0.0040 \Omega \cdot \text{cm}$
- Corrosion resistant, suitable for marine environments
- Low VOC

Additional Applications:

Commonly used for:

- Circuit repair
- Sensors
- Controllers
- Receivers
- Satellite dishes and radar systems
- Antennas
- Electric vehicles
- Cable boxes
- Networking gear, firewalls
- GPS's, navigation systems
- TV's, monitor's, and displays
- Electronic sporting equipment
- Audio equipment
- Electric guitars and other amplified instruments

842AR - Super Shield™ Silver Conductive Coating

A one-part durable acrylic lacquer pigmented with an extremely conductive silver flake.

Features & Benefits:

- Volume resistivity of $0.000076 \Omega \cdot \text{cm}$
- Extremely corrosion resistant, suitable for harsh marine
- Low VOC

Additional Applications:

Commonly used for:

- Circuit repair

Available Packaging

Consult price list for Series format availability



843AR - Super Shield™ Silver Coated Copper Conductive Coating

A one-part durable acrylic lacquer pigmented with a highly conductive silver coated copper flake

Features & Benefits:

- UL Recognized (File # E202609)
- Volume resistivity of $0.00047 \Omega \cdot \text{cm}$
- Low VOC

Additional Applications:

Commonly used for:

- Circuit repair
- Sensors
- Controllers
- Receivers
- Satellite dishes and radar systems
- Antennas
- Electric vehicles
- Cable boxes
- Networking gear, firewalls
- GPS's, navigation systems
- TV's, monitor's, and displays
- Electronic sporting equipment
- Audio equipment
- Electric guitars and other amplified instruments

Conductive Pens

Easily draw and repair conductive traces with MG Chemicals' conductive pens. They dispense acrylic lacquer pigmented with either carbon powder, nickel flake, or silver flake. Each pigment provides a different volume resistivity, making each pen suitable for different applications:

These pens are designed for use on smooth, flat, hard surfaces. The valve-tip opens when pressed against a drawing surface and flow is controlled by squeezing the barrel.

Features & Benefits:

- Coatings pigmented with either carbon powder, nickel flake, copper coated silver flakes.
- Create durable, corrosion resistant, conductive connections
- Typical trace width: 1.0 mm
- Tack free in minutes
- Adheres to copper, aluminum, ceramics, wood, and most electronic substrates
- Adheres to ABS, PLA, and other 3D printed plastics
- Toluene and xylene free

842AR-P - Silver Conductive Pen (high conductivity)

- Volume resistivity of $0.0001 \Omega \cdot \text{cm}$

Applications

- Repairing or replacing severely damaged traces on PCB's and mixing boards
- Creating conductive traces in prototype circuits
- Connecting electronic components and through-holes

841AR-P Nickel Conductive Pen (good conductivity)

- Volume resistivity of $0.0040 \Omega \cdot \text{cm}$

Applications

- Repairing damaged traces on PCB's.
- Creating short conductive traces in prototype circuits
- Creating bridges
- Increasing the surface area of contacts by painting

838AR-P Carbon Conductive Pen (modest conductivity)

- Volume resistivity of $0.33 \Omega \cdot \text{cm}$

Applications

- Repairing damaged traces on keyboards, game controllers, or remote controls
- Connecting jumpers
- Drawing resistors in prototype circuits



EMI/RFI Shielding

WATER-BASED CONDUCTIVE COATINGS

Our WB series Water Based Conductive Coatings are urethane systems pigmented with highly conductive fillers. They are easy to use with no heat cure necessary. The cured coatings are smooth, durable, and adhere well to plastics, wood, metal and ceramics. They bond well to drywall and can be painted over with common latex paints. They are available in three pigments: nickel, silver-coated copper, or silver. Customers can choose the most effective solution for their application.

Features & Benefits:

- Provides effective EMI/RFI shielding over a broad range of frequencies
- Can be applied by spray gun, roll, or brush
- One-part ready-to-use system—no dilution required
- Excellent adhesion to drywall
- Can be painted over with common architectural paints
- Cures at room temperature
- Safe on delicate plastics
- Good adhesion to acrylic, ABS, polycarbonate, and other injection molded plastics
- Good adhesion to wood, ceramics, copper and aluminum
- Good environmental resistance
- Non-flammable
- No noxious odors
- Ships by air as a non-dangerous good
- Low regulated VOC content allows for use in architectural applications

Common Applications

Architectural RFI shielding

- Containing RFI within a room:
 - engine room
- Protecting a room containing sensitive electronic equipment from general sources of interference, especially those near cell phone or radio towers:
 - Server rooms
 - Recording studios
 - Laboratories
 - Surgical rooms

Components Shielding

- Electronic enclosures
- Sensors
- Test equipment
- Portable controllers
- Communication devices
- conductive traces repair
- Electronic prototyping
- Most applications where one would normally use solvent based shielding.

EMI/RFI Shielding – Water Based

841WB - Super Shield™ Water Based Nickel Conductive Coating

a one-part urethane system pigmented with highly conductive nickel flake.

Features & Benefits:

- Volume resistivity of $0.027 \Omega \cdot \text{cm}$

842WB - Super Shield™ Water Based Silver Conductive Coating

A one-part durable acrylic lacquer pigmented with an extremely conductive silver flake.

Features & Benefits:

- Volume resistivity of $0.00068 \Omega \cdot \text{cm}$

843AR - Super Shield™ Water Based Silver Conductive Coating

A one-part durable acrylic lacquer pigmented with a highly conductive silver coated copper flake

Features & Benefits:

- Volume resistivity of $0.000075 \Omega \cdot \text{cm}$

Available Packaging

Consult price list for Series format availability



15 mL Jar



150 mL Bottle



850 mL Can



900 mL Can



3.78 L Can

EMI/RFI Shielding

EPOXY CONDUCTIVE COATINGS

Our ER series Epoxy Conductive Coatings are two-part systems pigmented with highly conductive fillers. They cure in 24 hours at room temperature or in two hours at 80 °C. The cured coatings are smooth and extremely hard. They also provide good chemical resistance and adhere strongly to plastics, including chemically resistant and low energy plastics. They are available in two pigments: nickel or silver-coated copper.

Features & Benefits:

- Provides excellent EMI/RFI shielding across a broad range of frequencies
- Extremely durable: vibration, abrasion and impact resistant
- Will not mar, scratch or flake
- Very strong adhesion to chemically resistant plastics and other difficult-to-bond-to materials
- Strong chemical resistance

Common Applications

Industries

- Automotive
- Aerospace
- Defence
- Oil and gas, and on aluminum flanges

Components Shielding

- Effective adhesive for electrostatic flocking
- May also act as a conductive base for:
 - Electroplating
 - Grounding
 - Any process where it is necessary to create a durable conductive surface

EMI/RFI Shielding – Epoxy

841ER - Super Shield™ Nickel Epoxy Conductive Coating

A two-part urethane system pigmented with highly conductive nickel flake.

Features & Benefits:

- Stands up to harsh environments
- Volume resistivity of $0.1 \Omega \cdot \text{cm}$

843ER - Super Shield™ Silver Coated Copper Epoxy Conductive Coating

A two-part durable acrylic lacquer pigmented with highly conductive silver coated copper flake.

Features & Benefits:

- Volume resistivity of $0.0018 \Omega \cdot \text{cm}$

Available Packaging

Consult price list for Series format availability



900 mL Can Kit



1.17L Can Kit



3.25L Can Kit

Epoxy Potting & Encapsulating Compounds

Our potting and encapsulating compounds are designed to provide a high level of protection to printed circuit boards and electronic devices by embedding them in a thick, durable polymer. Epoxies are used when extreme operating conditions require optimum protection. They offer different physical and chemical properties from other alternatives.

Features & Benefits:

- Cost effective
- Easy to use
- Extended shelf life
- Room temperature shipping and storage
- Room temperature cures are the norm
- Curing can usually be accelerated with heat
- Low VOC's
- Isocyanate-free
- Chemical resistance
- Primerless adhesion to many substrates
- More rigid
- Excellent moisture resistance
- Excellent durability
- Excellent bond strength
- Multifunctional protection

Common Applications

Industries

- Automotive
- Aerospace
- Consumer Electronics
- Defence
- Marine
- Medical
- Renewable Energies
- Telecommunications
- Transport
- Utilities

Components Potting and Encapsulation

- Printed circuit boards
- Electronics assemblies
- Electronics enclosures

Epoxy Compounds 832 Series Non UL Spec

Our potting and encapsulating compounds are designed to provide a high level of protection to printed circuit boards and electronic devices by embedding them in a thick, durable polymer. Epoxies are used when extreme operating conditions require optimum protection. They offer different physical and chemical properties from other alternatives.

Features & Benefits:

- Convenient 2A:1B or 1A:1B mix ratio
- Extremely high compressive and tensile strength
- Excellent adhesion to a wide variety of substrates including metals, composites, glass, ceramics, and many plastics
- Excellent electrical insulating characteristics
- Extreme resistance to water and humidity (allows for submersion where needed)
- Solvent-free

Common Applications

Industries

- Automotive
- Aerospace
- Consumer Electronics
- Defence
- Marine
- Medical
- Renewable Energies
- Telecommunications
- Transport
- Utilities

Components Potting and Encapsulation

- Printed circuit boards
- Electronics assemblies
- Electronics enclosures

832 Series – 2:1 Mix Ratio Non UL Spec

832B – Black Epoxy Encapsulating & Potting Compound

A black, general purpose, hard epoxy.

Features & Benefits:

- Low mixed viscosity of 3,300 cP
- Broad service temperature range -40 to 140 °C [-40 to 284 °F]

832WC – Water-Clear Epoxy Encapsulating & Potting Compound

A water-clear, general purpose hard epoxy.

Features & Benefits:

- Optically clear color (allows for visual inspection)
- UV light stable (non-yellowing) up to 100 °C [212 °F]
- Low mixed viscosity of 980 cP
- Broad service temperature range -40 to 140 °C [-40 to 284 °F]

832C – Translucent Epoxy Encapsulating & Potting Compound

A translucent amber, general purpose, hard epoxy

Features & Benefits:

- Translucent amber color (allows for visual inspection)
- Low mixed viscosity of 2,700 cP
- Broad service temperature range -40 to 140 °C [-40 to 284 °F]

832HT – High Temperature Epoxy Encapsulating & Potting Compound

A black, general purpose, hard epoxy designed for high temperature environments

Features & Benefits:

- Suitable for very high temperature applications
- Mixed viscosity of 21,900 cP
- Very broad service temperature range -40 to 225 °C [-40 to 437 °F]

Available Packaging

Consult price list for Series format availability



375 mL Bottle Kit



450 mL Dual Cartridge



3 L Can Kit



60 L Pail Kit

832 Series – 1:1 Mix Ratio Non UL Spec

832HD – Black Epoxy Encapsulating & Potting Compound

A black, general purpose, hard epoxy.

Features & Benefits:

- Low mixed viscosity of 4,100 cP
- Broad service temperature range -40 to 140 °C [-40 to 284 °F]

832FX – Flexible Epoxy Encapsulating & Potting Compound

A black, general purpose, flexible epoxy.

Features & Benefits:

- Flexible
- Very low mixed viscosity of 700 cP
- High elongation

832TC - Thermally Conductive Epoxy Encapsulating & Potting Compound

A black, general purpose, thermally conductive epoxy.

Features & Benefits:

- Thermal conductivity of 0.68 W/(m•K)
- Mixed viscosity of 18,000 cP
- Low exotherm

Available Packaging

Consult price list for Series format availability



25 mL Dual Syringe



50 mL Dual Cartridge



400 mL Dual Cartridge



1.7 L Can Kit



2.0 L Can Kit



7.4 L Pail Kit



8.0 L Pail Kit



40 L Pail Kit



834 Series - UL 746A Standard

All compounds in the 834 series are designed to meet the UL746A Standard for polymeric materials. The UL 746A Standard provides data regarding the physical, electrical, flammability, thermal, and other properties of the materials, and is intended to furnish guidance to the material manufacturers, molders, end-product manufacturers, safety engineers, and other interested parties.

Features & Benefits:

- Meets UL94V-0 standard
- Excellent adhesion to a wide variety of substrates including metals, composites, glass, ceramics, and many plastics
- Excellent electrical insulating characteristics
- Solvent-free

834B – Black Epoxy Encapsulating & Potting Compound

A black, flame retardant, thermally conductive epoxy.

Features & Benefits:

- Thermal conductivity of 0.79 W/(m•K)
- Low exotherm
- Very high compressive and tensile strength
- Broad service temperature range -40 to 175 °C [-40 to 347 °F]
- Contains non-halogenated flame-retardant fillers

834FX – Flame Retardant Epoxy Encapsulating & Potting Compound

A black, flame retardant, flexible epoxy.

Features & Benefits:

- Flexible
- Thermal conductivity of 0.61W/(m•K)
- High elongation
- Low exotherm
- Low Tg of 0.7 °C (33 °F)
- Very high compressive and tensile strength
- Broad service temperature range -50 to 150 °C [-58 to 302 °F]
- Contains non-halogenated flame-retardant fillers

834 Series - UL 746A Standard

834FRB – Black Epoxy Encapsulating & Potting Compound

A black, flame retardant, thermally conductive epoxy.

Features & Benefits:

- Certified UL 94V-0 (File # E334302)
- Low mixed viscosity of 2,600 cP
- Very high compressive and tensile strength
- Excellent Comparative Tracking Index (>600 V, PLC=0)

834ATH – Flame Retardant Epoxy Encapsulating & Potting Compound

A black, flame retardant, thermally conductive epoxy.

Features & Benefits:

- Certified UL 94V-0 (File # E334302)
- Cost effective
- Low exotherm
- High compressive and tensile strength
- Excellent Comparative Tracking Index (400 to 599 V, PLC=1)
- Broad service temperature range -40 to 175 °C [-40 to 347 °F]
- Contains non-halogenated flame-retardant fillers
- Mixed viscosity of 5,900 cP

Available Packaging

Consult price list for Series format availability



375 mL Bottle Kit



450 mL Dual Cartridge



2.7 L Can Kit



3 L Can Kit



10.8 L Can Kit



60 L Pail Kit

Dispensing Guns & Static Mixers

8DG-450-2-1

A manual dispensing gun with two steel piston arms for use with 2:1 450 mL cartridges



8DG-400-1-1

A manual dispensing gun with two steel piston arms for use with 1:1 400mL cartridges



8DG-50-1-1

A dispensing gun, made of solid plastic, for use with 50 mL dual cartridge systems



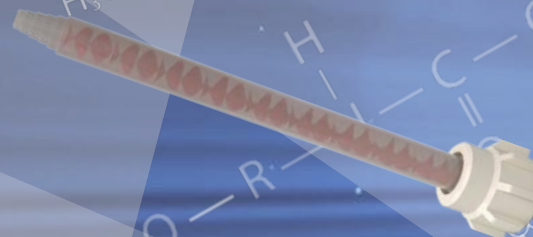
8DG-30-1

A dispensing gun, made of solid plastic, for use with 30 mL one-part cartridges



8MT-450

A large mixing tip unit with a standard flow tip for use with 2:1 450 mL and 1:1 400 mL cartridges



8MT-50

A mixing unit with a standard flow tip for use with 1:1 50 mL cartridges and 1:1 25 mL syringes



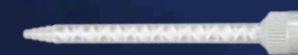
8MT-50FT

A mixing unit with a fine flow tip allowing greater precision dispensing, for use with 1:1 50 mL cartridges



8MT-25

A mixing unit with a standard flow tip for use with 832HD 1:1 50 mL cartridge and 1:1 25 mL dual syringes



Conformal Coatings

MG Chemicals Conformal Coatings are designed to protect assembled printed circuit boards from harsh environmental conditions.

Features & Benefits:

- Clear, thin, flexible and durable
- Protects against dust, humidity, moisture, salt spray and chemical fogs
- Protects against arcing, shorts, static discharges and thermal shocks
- Prevents corrosion
- Contains a UV indicator for optical inspection
- May be applied by brushing, dipping, spraying or robot
- Available in liquid or aerosol packaging
- IPC and UL compliant versions available

Applications

- Improves reliability and lengthens the life of electronic circuitry
- Protects circuitry in coastal cities, and tropical, marine, or other humid environments
- Allows electronic devices to operate in other harsh environments
- Allows traces to be placed closer together by preventing arcing

419D - Acrylic Conformal Coating

- Easy application and rework
- Cures at room temperature
- Good humidity resistance
- Excellent durability

422B - Silicone Modified Conformal Coating

- Easy application and rework
- Soft and flexible
- Wide service temperature range

4223F - Urethane Conformal Coating

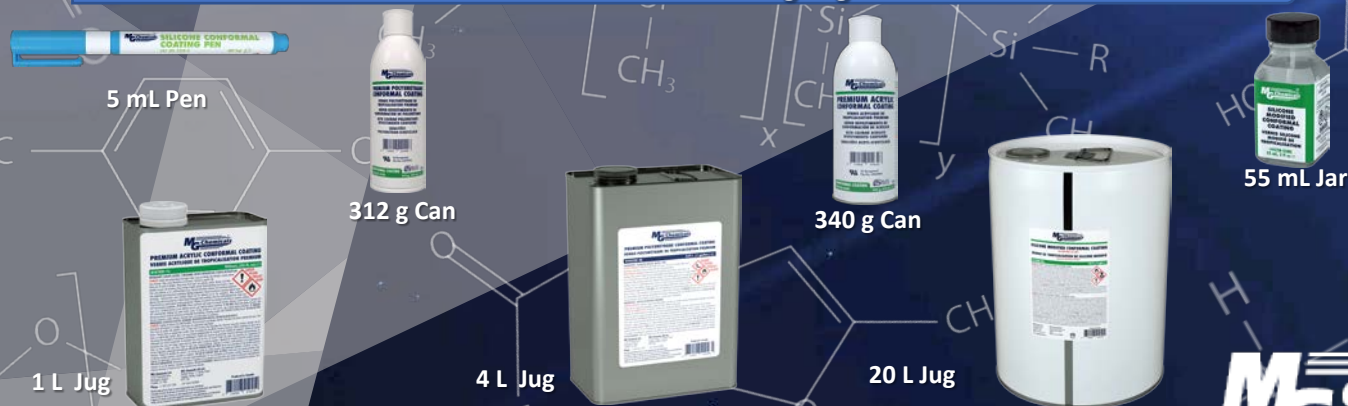
- Excellent humidity resistance
- Excellent dielectric strength
- Good chemical resistance
- Abrasion resistant

4225 Epoxy Conformal Coating

'Coming Soon'

- • Extremely durable
- • Excellent moisture resistance
- • Excellent chemical resistance
- • Good dielectric strength
- • Scratch and mar resistant

Available Packaging



Conformal Coatings Overcoat Pens

MG Chemicals Overcoat Pens are easy to use conformal coating acrylic one part resin systems. They are fast drying and provide an excellent finish in multiple colors. They are ideal to repair or rework damaged coated areas and protect electronic circuits against moisture, dirt, dust, thermal shocks, scratches and other environmental hazards that could corrode, or otherwise damage the electronic components. They also insulate against arcing, shorts, and static discharges.



Features & Benefits:

- Protects and insulates circuit boards traces
- For repairs or rework of solder masks and circuit boards
- Excellent finish—smooth, homogeneous, and durable
- Protects electronics from moisture, corrosion, fungus, and static discharges
- Clear Overcoat Pen (419D-P-CL) is certified to UL 94-V0 and IPC-CC-830B
- No Hazardous Air Pollutants—free of toluene and xylene
- Comes in variety of colors—blue, black, clear, green, and white
- Tack free in only 10-15 minutes

Specialty Adhesives

Cyanocrylates

Quick curing, solvent-less, high viscosity cyanoacrylate adhesive.

Features & Benefits:

- Bonds a wide variety of substrates
- Strong chemical resistance

Common Applications

Bond:

- rubber to rubber
- plastic to plastic
- rubber to metal
- plastic to metal

8333 – MG Super Glue Liquid

- Mil-Spec-46050C: Adhesive Type II, Class 2
- Handling time of only 10 seconds

8334 – MG Super Glue Gel

- Handling time of only 25 seconds



8333-3G



8333-20G



8334-3G

One-Part General Purpose Epoxy

One-Part Epoxy General Purpose Adhesives heat cured, electrically and thermally insulating, thixotropic glue with 12 months shelf life and unlimited working time at room temperature

Features & Benefits:

- One-part adhesive—no mixing required
- Shelf life of 12 months at room temperature
- Excellent adhesion to common electronic substrates and components
- Electrically and thermally insulating
- Thixotropic
- Unlimited working time at room temperature
- Manual, pneumatic, and robotic dispensing processes.

Common Applications

- Bonding of SMD's and fiber optic components
- Consumer electronics
- Contract manufacturing
- Telecommunications
- Medical equipment
- Automotive manufacturing.

9300 – One-Part Epoxy General Purpose Adhesive, Low Tg

- Minimum cure temperature of 70 °C [158 °F]
- Tg of 22 °C [72 °F]

9310 – One-Part Epoxy General Purpose Adhesive, High Tg

- Minimum cure temperature of 100 °C [212 °F]
- Tg of 113 °C [235 °F]



10 ML Syringe



300 ML Cartridge

Threadlockers

Anaerobic formulation designed to secure and seal fasteners

Features & Benefits:

- Prevents loosening and ensures a secure hold
- Prevent corrosion, seal threads, improve torque control, and reduce galling
- Reduces friction allowing controlled torque during assembly
- Meets MIL S-46163

8701 – Low Strength, Removable

- Low toxicity

8702 – Medium Strength, Removable

- Low toxicity
- Suitable for Use in Food Facilities

8703 – High Strength, Permanent

8704 – High Strength, Wicking

- Ideal for post application to pre-assembled fasteners
- Penetrates threads by capillary action



Specialty Adhesives

8332 – Fast Set Epoxy

An adhesive that combines quick set time and high strength. A convenient dual syringe format provides ease of use.

Features & Benefits:

- Electrically insulating
- Generally resists to both thermal and mechanical shocks
- Easy 1:1 mix ratio
- Set time of only 8 to 10 minutes
- Heat cure in only 15 minutes at 65 °C—safe for heat sensitive components
- Shelf life of two years—even when stored at room temperature
- Strong water and chemical resistance to brine, acids, bases, and aliphatic hydrocarbons
- Excellent adhesion to most electronic substrates
- Solvent free
- Gap filler

Common Applications

Bond

- Plastics
- Ceramics
- Woods
- Fiberglass
- Glass
- Concrete
- Most metals



Structural Epoxy

A two-part, thixotropic, toughened adhesive that offers excellent adhesion to a wide range of difficult to bond to materials.

Features & Benefits:

- Toughened, smooth, thixotropic paste
- 1:1 mix ratio
- Non-sagging and gap filling
- Very strong adhesion
- Bonds dissimilar materials
- Electrically insulating
- Highly resistant to vibration and temperature cycling
- Extreme chemical resistance to moisture, salt water, detergents, gasoline, hydraulic fluids, antifreeze, automotive fluids, acids, and bases
- Low shrinkage
- Working life: 30 minutes
- Cure time: 24 hours at room temperature
- Easy to dispense

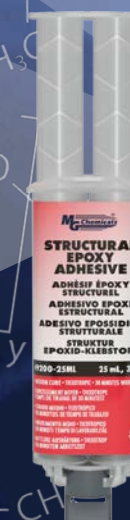
Common Applications

- Creating long lasting load bearing joints
- Sheet molding compound (SMC) and glass-reinforced plastics (GRP) bonding
- Gap filling
- Vertical surfaces bonding
- Electronics potting
- Dissimilar materials bonding

9200 – Structural Epoxy Adhesive

9200FR – Flame Retardant Structural Epoxy Adhesive

- Flame Retardant—Meets UL 94V-O Vertical Burn Test



25ML Dual Syringe



50ML Dual Cartridge

Electrically Conductive Adhesives

ONE-PART

One-Part Epoxy Electrically Conductive Adhesives non-sagging, silver-filled glue with extremely high electrical conductivity.

Features & Benefits:

- One-part adhesive—no mixing required
- Shelf life of 6 months at room temperature
- Extremely high electrical and thermal conductivity
- Thixotropic and non-sagging
- Unlimited working time at room temperature

9400 – One-Part Epoxy Electrically Conductive Adhesive, Low Tg

- Minimum cure temperature of 70 °C [158 °F]
- Tg of 36 °C [97 °F]

9410 – One-Part Epoxy General Purpose Adhesive, High Tg

- Minimum cure temperature of 90 °C [194 °F]
- Tg of 120 °C [248 °F]

Common Applications

- Semi-conductor flip chip packaging Consumer electronics
- Hybrid micro-electronic substrate attachment
- Lid-sealing in electronic assembly operations die attach for small chips, LED's, and diodes



TWO PARTS

Two-part, smooth, silver paste adhesives that cures to form a hard, durable polymer that is extremely conductive, electrically and thermally.

Features & Benefits:

- 1:1 mix ratio by volume
- Good adhesive strength
- Strong resistance to water, brine, acids, bases, and aliphatic hydrocarbons
- Room temperature storage
- Shelf life greater than three years

Common Applications

- Replacement for bonding heat-sensitive electronic components
- Making conductive bonds
- Quick cold soldering repairs
- EMI/RFI shielding
- Filling in seams between metal plates

10 Min. Working Time

High Conductivity

8330

- Electrical resistivity: 0.0010 $\Omega \cdot \text{cm}$
- Thermal conductivity: 1.6 W/(m·K)
- Cure time: 24 hours at room temperature or 20 minutes at 65 °C

Extreme Conductivity

8330S

- Electrical resistivity: 0.0007 $\Omega \cdot \text{cm}$
- Thermal conductivity: 1.75 W/(m·K)
- Cure time: 2 hours at 65 °C

4 Hours Working Time

8331

- Electrical resistivity: 0.007 $\Omega \cdot \text{cm}$
- Thermal conductivity: 0.90 W/(m·K)
- Cure time: 24 hours at room temperature or 20 minutes at 65 °C

8331S

- Electrical resistivity: 0.0060 $\Omega \cdot \text{cm}$
- Thermal conductivity: 0.85 W/(m·K)
- Cure time: 2 hours at 65 °C

14g / 15g / 19g / 21g
Twin Syringes



50 ML Jar kit



520 ML Can kit



Thermally Conductive Adhesives

ONE-PART

One-Part Epoxy Electrically Conductive Adhesive non-sagging, silver-filled glue with high thermal conductivity, high electrical

Features & Benefits:

- One-part adhesive—no mixing required prior to use
- High thermal conductivity
- Electrically insulative
- Thixotropic and non-sagging
- Unlimited working time at room temperature
- Shelf life of 9 months at room temperature
- Minimum cure temperature of 100 °C [212 °F]
- Tg: 117 °C

Common Applications

- Semi-conductor flip chip packaging
- Consumer electronics
- Hybrid micro-electronic substrate attachment
- Lid-sealing in electronic assembly operations die attach for small chips, LED's, and diodes

9460 – Thermally Conductive Adhesive, High Tg



10 ML Syringe



300 ML Cartridge



6 mL Twin Syringes



25 mL Dual Syringe



50mL Dual Cartridge



50 ML Jar kit



200 mL Can kit



TWO PARTS

Two-part, smooth, paste adhesives that cures to form a hard, durable polymer that is extremely thermally conductive, yet electrically insulating. They are highly filled with thermally conductive ceramic powders for maximum thermal conductivity.

Features & Benefits:

- 1:1 mix ratio by volume
- Room temperature storage
- Good adhesive strength
- Strong resistance to water, brine, acids, bases, and aliphatic hydrocarbons

4 Minutes Working Time

Paste

8329TCF

- Thermal conductivity: 1.0 W/(m·K)
- Set time @25 °C of 15 minutes
- Cure time: 3 hours @ 25 °C /15 minutes @ 65 °C
- **Flame retardant—meets UL 94V-0 standard**

Flowable

45 Minutes Working Time

8329TCM

- Thermal conductivity: 1.36 W/(m·K)
- Cure time: 24 hours at room temperature /1 hour @ 65 °C

8329TFM

- Thermal conductivity: 1.14 W/(m·K)
- Cure time: 24 hours at room temperature or 150 minutes @ 65 °C
- Suitable for automatic dispensing

4 Hours Working Time

8329TFS

- Thermal conductivity: 1.22 W/(m·K)
- Cure time: 96 hours at room temperature /20 minutes @ 80 °C

8329TFS

- Thermal conductivity: 1.22 W/(m·K)
- Cure time: 24 hours at room temperature or 80 minutes at 80 °C
- Suitable for automatic dispensing

Greases & Lubricants

8461 – Lithium Grease

A multi-purpose lubricant that provides long superior lubrication and protection against corrosion

Features & Benefits:

- Corrosion inhibitor
- Heat resistant
- Easy to use and apply: Smooth buttery cream texture
- Long lasting

Applications

- Reduce friction and wear
- Corrosion inhibition
- Prevent metal oxidation



8461-85ML



8461-1P

8464 – Static Dissipative, Anti-Corrosive Grease

A non-bleeding grease that is produced with an extremely temperature stable, low-volatility synthetic oil.

Features & Benefits:

- Designed to meet aerospace specifications for anti-corrosive greases
- Excellent high temperature stability
- Non-bleeding—oil separation resistant
- Separation resistant
- Silicone free
- Safe on plastics

Applications

- Static build up discharge
- Corrosion inhibition



8461-1
8461-85ML



8461-2
8461-1P

8462 – Silicone Grease

A translucent, water repelling (hydrophobic), non-melting, and lubricating dielectric grease that provides superior corrosion and arcing resistance.

Features & Benefits:

- Stable over wide temperature range and conditions - Non-melting
- Excellent electrical insulator—High dielectric strength
- Usable for incidental food contact (Conforms to 21 CFR section 178.3570)
- Safe for most metals, rubbers, plastics, and elastomers.
- Odorless and non-toxic
- Corrosion inhibitor
- Suitable for Use in Food Facilities as a Non-Food

Applications

- Voltage arcing prevention
- Extreme cold, heat, humidity protection
- Contact and relays oxidation protection
- Water repelling



8462-85ML



8462-1P



8462-1G

Electrically Conductive Greases

MG Chemicals offers a full line of electrically conductive greases formulated to improve electrical conductivity while providing protection against moisture and corrosion. These greases work by replacing air between surface irregularities and voids with conductive material, therefore lowering the electrical resistance between those surfaces.

Features & Benefits:

- Safe on most plastics
- Corrosion resistant
- Prevents arching, pitting, hotspots, and welds between surfaces
- Improves conductivity between irregular or pitted surfaces
- Ensures electrical contact between loose or vibrating parts and small gaps

Applications

- Gaskets for EMI shielding
- Car headlights
- Electrical sockets
- Bus bars
- Battery terminals

846 – Carbon Conductive Grease

An electrically conductive silicone grease for improving electrical connections between sliding surfaces and parts.

Features & Benefits:

- Extends the life of contacts
- Ensures electrical contact between sliding surfaces
- Volume resistivity of $114 \Omega \cdot \text{cm}$

8481 – Premium Carbon Conductive Grease

A non-bleeding electrically conductive grease with a synthetic oil base with corrosion inhibitors that provide superior corrosion resistance.

Features & Benefits:

- Excellent corrosion resistance
Passed ASTM B 117 >550 hours
- Volume resistivity of $160 \Omega \cdot \text{cm}$
- Extends the life of contacts
- Silicone free

847 – Carbon Conductive Paste

A low-cost, non-silicone electrically conductive assembly paste that withstands high temperatures without drying. It resists separation and bleeding very well.

Features & Benefits:

- High conductivity of 0.04 S/cm
- Doesn't separate or bleed like silicone-based oil
- Withstands high temperature
- Lubricates even at low temperature
- Zero VOC
- Volume resistivity of $23 \Omega \cdot \text{cm}$

8463 – Silver Conductive Grease

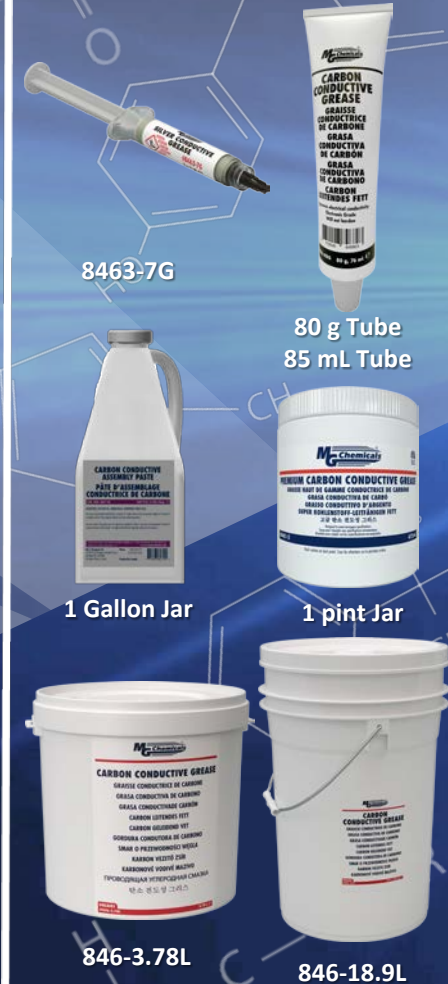
Produced with an extremely temperature stable silicone oil for use between sliding surfaces. It lubricates, helps discharge static build up and conducts heat.

Features & Benefits:

- Excellent high temperature stability

Available Packaging

Consult price list for format availability



Thermally Conductive Greases

MG Chemicals thermal greases are made from high quality synthetic lubricants mixed with thickening fillers. They eliminate air between heat sources and heat sinks or metal chassis and dissipate heat away from the components while insulating from electrical current to extend the life of electronic components.

Features & Benefits:

- High thermal conductivity
- Lowers the contact resistance between irregular surfaces
- Create a perfect bond between irregular surfaces
- Non-bleeding
- Non-conductive
- Long shelf life
- Safe on most plastics
- Corrosion resistant

Applications

- CPUs
- GPUs
- Power components
- LEDs
- Chipsets
- Heatsinks

860 – Silicone Heat Transfer Compound

A low thermal resistance grease with a silicone base that is electrically insulating and non-corrosive.

Features & Benefits:

- High dielectric strength

8616 - Super Thermal Grease II

A low thermal resistance grease with a synthetic oil base.

Features & Benefits:

- Silicone free and non-bleeding
- Excellent corrosion resistance—Passed ASTM B 117 1 000 hours

8617 – Super Thermal Grease III

A low thermal resistance, non-corrosive grease that uses an extremely thermal stable synthetic oil.

Features & Benefits:

- Silicone and ZnO free – ships non-regulated in all sizes
- Non-bleeding

Available Packaging



Lead-Free Solder Wires

Features & Benefits

- Alloy exceeds J-STD-006C and meets ASTM B 32 purity requirements
- Flux meets J-STD-004B
- Fast wetting
- Fast flowing
- Non-corrosive
- Non-conductive residue
- Melting point: 217 °C [423 °F]

Sn99e

Formulated from a blend of Sn99.3/Cu0.7 alloy lead-free, non recycled metal this is a great alternative to leaded solders. It is suitable, less costly replacement for SAC305.

4901 RA Solder Wire

- The resin spreads like rosin-activated flux
- Virtually non-splattering
- Non-conductive residue
- Halide free
- Suitable for Use in Food Facilities as a Non-Food Chemical
- Melting point: 227 °C [442 °F]

SAC305

Formulated from a blend of Sn/Ag/Cu alloy lead-free, non recycled metal, it is a great alternative to leaded solders

4925 / 4926 RA Solder Wire

- Rosin activated flux
- Fast wetting
- Fast flowing
- Melting point: 217 °C [423 °F]

4900 / 4917 NC Solder Wire

- No clean flux
- The resin spreads like rosin-activated flux
- Virtually non-splattering
- Halide free
- About 14% longer by weight than leaded solder wires
- Suitable for Use in Food Facilities as a Non-Food Chemical
- Melting point: 183 °C [361 °F]

Sn100e

Formulated from a blend of tin/copper/cobalt alloy lead-free, non recycled metal, It generally provides better wetting, contact angle, flow, and visual appearance than typical Sn63/Pb37 no clean solders. It offers superior solder penetration into plated through holes and surface mount interconnects and is a suitable replacement for SAC305 as it forms brighter, shinier, and less grainy joints. While being less expensive.

4942 / 4944 RA Solder Wire

- Rosin activated flux
- Fast wetting
- Fast flowing
- Melting point: 228 °C [442 °F]

4933 / 4935 RA Solder Wire

- Rosin activated flux
- Spreads like rosin-activated flux
- Virtually non-splattering
- Melting point: 228 °C [442 °F]

49500WS Solder Wire

- Water soluble flux
- Fast wetting
- Fast flowing
- Low VOC
- Melting point: 228 °C [442 °F]

49500 NC Solder Wire

- Spreads like rosin activated flux
- Virtually non-splattering
- Halide free
- Melting point: 228 °C [442 °F]

Available Packaging

Consult price list for Series format availability



112 g spool



227 g spool



454 g spool

Solder Pastes

Made from a blend of high purity, non-recycled metal alloy powder blended with a flux to form a paste.

Features & Benefits

- Alloy exceeds J-STD-006C and meets ASTM B 32 purity requirements
- Flux meets J-STD-004B

Leaded

4860P - S63Pb37 No Clean Solder Paste

Made from a blend of high purity, non-recycled tin and lead alloy powder blended with a no clean flux to form a paste. The post soldering residues are transparent, non-conductive, non-corrosive, and highly insulated.

Specific Features

- Non-corrosive
- Non-conductive residue
- Halide free
- Good wettability
- Type 3 (45-25 μm)
- Melting point: 183 °C [361 °F]



4860P-35G



4860P-250G



4860P-500G

Lead-Free

4900P - SAC305 No Clean Solder Paste

Made from a blend of high-purity, non-recycled tin, silver, and copper metal powder mixed with a no clean flux. It is designed for extreme flux activity and enhanced printing characteristics needed for ultra-fine pitch applications. It provides excellent wetting on copper OSP-coatings.

Specific Features

- Non-corrosive
- Non-conductive residue
- Halide free
- Good wettability
- Type 3 (45-25 μm)
- Melting point: 183 °C [361 °F]

4902P - Sn42Bi57Ag1 Low Temperature Solder Paste

Made from a blend of high-purity, non-recycled tin, bismuth and silver metal powder mixed with a rosin flux. Formulated for low temperature applications, it spreads and adheres well to a variety of materials and dispenses evenly and resists solder beading and bright spots.

Specific Features

- Particle size Type 3 (with 80% min. between 25-45 μm)
- No-clean
- Excellent 12 mil (0.30 mm) fine pitch printing capability
- Long operational life—non-slumping
- Good wettability
- Halogen free
- Melting point: 138 °C [280 °F]



4900P-25G



4900P-250G



4902P-15G



4902P-25G

Fluxes

A full line of solder Fluxes formulated to provide high-tack force, superior wetting and remarkable soldering performance levels. They are designed to provide effective adhesion to copper and other substrates and act as an oxygen barrier to prevent oxidation during soldering.

Pastes

8341 - No Clean Flux Paste

Made from a mix of rosin, thickener, and high-grade synthetically refined resin.

Specific Features

- Excellent wettability
- Clear, non-conductive, and non-tacky residues
- Usable for both lead free and leaded alloys

8342 – RA Rosin Flux Paste

A superior flux paste that makes surface-mount, electrical, and electronics soldering faster and easier. It is easy to apply and stays where it is applied. Residues are easy to clean.

Specific Features

- Uses Premium Grade RA Flux
- Excellent wettability
- High tack force
- Long tack time
- Zinc Chloride or Ammonium Chloride FREE

Liquid

835 - Rosin Flux

A unique solvent system composed of pure Water White (WW) grade gum rosin that contains very effective activators

Specific Features

- For leaded and lead-free solder
- Fast wetting
- Non-corrosive
- Non-hygroscopic

836LFNC - Lead-Free, No Clean Flux

Contains a homogenous mixture of halogen-free, low-solids organic flux. A chiseled tip provides exact delivery of the flux to the surface

Specific Features

- Halogen-free
- Excellent wetting
- Bright, shiny solder joints
- Low residue
- Rosin/Resin free

Features & Benefits

- Flux meets J-STD-004B
- RoHS compliant.

8351 - No Clean, Halogen-Free Flux

Specially designed to minimize bridge defects and solder defects, it is low solids, this organic flux leaves virtually no residues.

Specific Features

- Halogen free
- Rosin/Resin Free
- Leave the board and joints shiny and bright
- Excellent wettability
- Usable for both lead free and leaded alloys

837LFWS - Lead-Free, Water Soluble Flux

A neutral, water-removable soldering flux. It has a neutral pH at room temperature and becomes activated at soldering temperature .

Specific Features

- Excellent wettability
- Neutral pH
- Cleans with water
- Yields bright, shiny joints
- Good soldering properties

Available Packaging

Consult price list for Series format availability



10 mL Syringe



10 mL Pen



50 g Jar



125 mL Bottle



100 mL Bottle



1 L Bottle



20 L Pail



4 L Bottle



55 G Drum

Desoldering Braids

Super Wick Fine Braids are high quality, precision cleaned desoldering braids that were produced with up-to-date and environmentally friendly processes and technology. The high purity copper conducts heat fast, allowing for faster wicking and shorter dwell time that minimizes possible overheating damages.

Features & Benefits

- High purity oxide free copper
- Tightly woven
- Fast wicking
- Environmentally stable
- ESD safe bobbins for 1.5m size
- NSF – Non-food Compounds Program Listed

Applications

- Solder removal
- Reworking and repair of circuit boards
- Benchtop repair and service
- Surface mount assembly touch up

400 Series Fine Braid Super Wick

- RMA flux
- Economical

400-NS Series Fine Braid Super Wick

- No Clean flux
- Flux residue is non-conductive and non-corrosive

400-LF Series Fine Braid Super Wick

- Designed for use with lead free solder
- No-clean flux with high activation temperature
- Flux residue is non-conductive and non-corrosive

Available Packaging

Consult price list for Series format availability



1.5 m [5 ft]



7.5 m [25 ft]



15 m [50 ft]



30 m [100 ft]

Removers / Tinning / Masking

Flux Removers

Features & Benefits

- Zero residue
- RoHS Compliant

Applications

- Removal of:
- Rosin, non-rosin, no-clean fluxes
 - Non-ionic and ionic contamination

4140 - Flux Remover for PC Boards

A blend of ethyl alcohol, isopropanol, and ethyl acetate with a non-corrosive and non-conductive formulation and an eco-friendly, dry cleaning solvent.

Features & Benefits

- Low odor
- Safe on most plastics
- Moderate dry time
- Suitable for Use in Food Facilities as a Non-Food Chemical

413B - Heavy Duty Flux Remover

Specially formulated to dissolve and remove the most stubborn, encrusted, hard, baked-on fluxes and residues and work aggressively on isolated and hard to reach areas requiring spot cleaning.

Features & Benefits

- Quickly dissolves burnt on flux
- Fast dry time

Available Packaging

Consult price list for Series format availability



Tip Tinner

A lead-free mixture composed of SAC305 powder mixed with some thermally stable, oxide-reducing compounds used for quickly cleaning, repairing, and maintaining solder iron tips. It offers better cleaning than pads or wet sponges.

Features & Benefits

- Lead free Sn96.6/Ag3/Cu0.5 alloy
- Suitable for both lead and lead-free tip repairs
- Health and environment safe
- Minimal fume production
- Minimal residue
- Non-corrosive
- Easy to use
- Halogen free



Solder Mask

A synthetic latex product that provides effective protection of contacts, gold fingers, printed circuit card edges and it can be easily peeled off once the wave soldering process is done.

Features & Benefits

- Withstands Wave Soldering
- Non-Corrosive—Safe for copper, gold, silver, and solder joints
- Solvent Solubility—Largely insoluble once cured (flux and cleaning solvent resistant)
- Water Soluble—Can be thinned with deionized (D.I.) water to adjust viscosity
- Immersion Resistant—insoluble once cured
- Room Temperature Cures or Quick Heat Curing
- Cure Monitoring Color Change—Changes from opaque pink to translucent red once cured
- Ammonia Free—Does not discolor copper traces



Liquid Electronics Cleaners

4050 – Safety Wash

A high purity, printed circuit board cleaner and solvent made from a blend of high purity ethyl alcohol, isopropyl alcohol, and ethyl acetate.

Features & Benefits:

- Plastic Safe
- Good cleaning strength
- Moderate evaporation rate
- Zero residue
- CARB compliant when diluted 25%

Applications

Remove:

- Light greases
- Oils
- Smoke
- Inks
- most fluxes



4050-1L



4050-4L



4050-20L

824 – Isopropyl Alcohol

A 99.95% pure anhydrous alcohol, multipurpose cleaner and solvent that is highly anhydrous (without water) and hygroscopic to scavenge water off surfaces

Features & Benefits:

- Meets MIL Spec TT-I-735A and ASTM D770
- Meets reagent ACS and USP/NF Grades
- Anhydrous solvent—Removes water and humidity from components
- Less than 0.001 g/100 mL non-volatile residues
- Excellent “Green Solvent” scores
- Safe for aqueous environments
- Low toxicity
- Suitable for Use in Food Facilities

Applications

- **Remove:** Light greases, Oils, Smoke, Inks and most fluxes



824-100ML



824-500ML



824-1L



824-4L



824-20L

8241 – Isopropyl Alcohol 70/30

A great all-purpose electronics cleaner made from a blend of 70 parts 99.95% pure isopropyl alcohol (“IPA”) and 30 parts deionized water.

Features & Benefits:

- Safely removes dust, dirt, and greases
- 70/30 Isopropyl Alcohol blend
- Safe for paints, metals and plastics
- Suitable for Use in Food Facilities

Applications

- **Dissolve:** Dirt, dust, greases, light organic contaminants
- Disinfect surfaces

8241-20L

434 – Acetone

A pure and very aggressive solvent, that dries extremely quickly, and is zero residue. It may be used as a cleaner or stripper.

Features & Benefits:

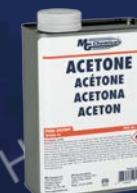
- Highly miscible with other common organic solvents
- Fast evaporation rate
- VOC exempt diluent
- ACS Grade

Applications

- Diluent to meet VOC regulations
- Organic residues removal
- Cleaning of oxygen valve according to the Praxair Class 2 standard.
- Enhance adhesion to 3D printer beds
- Smooth finishing of 3D printed pieces



434-1L



434-1L

Aerosol Electronics Cleaners

A high purity, printed circuit board cleaner and solvent made from a blend of high purity ethyl alcohol, isopropyl alcohol, and ethyl acetate.

4050A – Safety Wash II

A high purity, printed circuit board cleaner and solvent made from a blend of high purity ethyl alcohol, isopropyl alcohol, and ethyl acetate.

Features & Benefits:

- Variable valve allows user to control the rate of flow



4050-450G

406B – Super Wash™

A very fast drying degreaser for PC boards great for dissolving many types of flux and cleaning and degreases printed circuit boards, machinery, electrical and electronic devices.

Features & Benefits:

- Fast evaporation rate
- Dissolves oils and residues



406B-425G

824 – Isopropyl Alcohol

A 99.95% pure anhydrous alcohol ("IPA") in an aerosol can with HFC152A VOC free propellant.

Features & Benefits:

- Meets MIL Spec TT-I-735A and ASTM D770
- Meets reagent ACS and USP/NF Grades
- Less than 0.001 g/100 mL non-volatile residues
- Excellent "Green Solvent" scores
- Safe for aqueous environments
- Low toxicity



824-425G

Features & Benefits:

- Convenient aerosol packaging
- VOC free propellant
- CARB compliant
- Zero residue
- Suitable for Use in Food Facilities

Applications

- Electronics maintenance and repair
- Post production PCB cleaning

411 – HFE Electronics Cleaner

A hydrofluoroether non-flammable, and non-conductive cleaner degreaser that can be used on live circuits.

Features & Benefits:

- Energized circuit safe
- Equipment safe
- Workplace safe
- Environmentally safe
- Short atmospheric life, non-ozone-depleting substance
- Approved by US EPA SNAP program, without restrictions
- Replaces Freon TF solvent

4120 – Super HFE Electronics Cleaner

A hydrofluoroether non-flammable, and non-conductive cleaner degreaser that offers a similar cleaning performance to similar CFC type cleaners without the accompanying safety concerns.

Features & Benefits:

- Fast drying
- Equipment safe
- Workplace safe—non-flammable
- Replaces Freon TF solvent

4120 – 450G

411-300g

Contact Cleaners

MG Chemicals contact cleaners are specifically formulated to clean, lubricate, and protect these vital components to restore and prolong their conductivity and performance

401B - Contact Cleaner with Silicones

A unique blend of high purity solvent and special lubricating oil, perfect for cleaning and lubricating moving parts in electronics

Features & Benefits:

- Contains electronic grade mineral oil
- A variable valve on the aerosol lets you adjust the flow rate as needed
- CARB compliant
- Suitable for Use in Food Facilities



401B-140G



401B-340G

404B - Contact Cleaner with Silicones

A very fast drying contact cleaner that leaves a thin film of dry electronic grade silicone behind providing lubrication and preventing wear and tear, as well as a layer of protection from oxidation and the elements.

Features & Benefits:

- Non-conductive
- Maximum service temperature of 200 °C (392 °F)
- Safe on many plastics
- Fast evaporation rate
- Protects from oxidation
- Reduces wear and abrasion
- CARB compliant
- Suitable for Use in Food Facilities



404B-140G



404B-340G

Features & Benefits:

- Plastic safe
- Convenient aerosol can packaging
- Variable valve allows user to control rate of flow
- RoHS compliant

409B - Electrosolve Contact Cleaner

A very fast drying and zero residue contact cleaner that cleans connectors, contacts, circuit breakers, microprocessors, and LED and PCB components

Features & Benefits:

- Zero residue
- Fast evaporation rate
- Dissolves oils and residues
- A variable valve on the aerosol lets you adjust the flow rate as needed
- Suitable for Use in Food Facilities



409B-140G



409B-340G

Applications

- Improve performance
- Prolong Conductivity
- Clean
- Lubricate
- Protect

801B / 801C - Super Contact Cleaner with PPE

A slow drying contact cleaner that cleans, lubricates, protects, and removes stubborn residues. It also bonds onto the surface of metals

Features & Benefits:

- Improves conductivity
- Protects gold for life
- CARB compliant
- Also available in pen format (801C-P)



801B-125G



801C-P

Specialty Cleaners

MG Chemicals formulates a number of specialty cleaners for the electronics maintenance industry.

407C - Audio/Video Head Cleaner

Designed to provide optimal cleaning power for VCR, CD, DVD, Blu Ray, magnetic backup systems, minivideo tape cameras, mini-cassette players, disk heads, optical tape drive lens, and magnetic tape heads.

Features & Benefits:

- Zero residue
- Improves signal quality
- Static free



407C-250ML

408A / 408B - Rubber Renue

Restores old rubber parts by causing the rubber to swell, allowing dirt to come out of its pores.

Features & Benefits:

- Halogen free
- Rejuvenates old, dry, and hard rubber
- Restores tackiness, flexibility, and elasticity



408A-125ML



408B-1L

8361 - Label and Adhesive Remover

Formulated to effectively remove adhesive, sticker, and ink residues.

Features & Benefits:

- Compatible with most substrate
- Available in aerosol and pen format
- Suitable for Use in Food Facilities



8361-140G

Features & Benefits:

- Safe on plastics
- Maintains components clean and in good working condition

Applications

- Manufacturing equipment and electronic components protection, maintenance and repair

826 - Static Off™ Antistatic Foaming Spray

A non-drip formulation that effectively polishes and eliminates static charges with a single application.

Features & Benefits:

- Non-flammable and non-abrasive
- Eliminates static charge with one application
- Reduces attractions of dust and other airborne contaminants
- Non-streaking and non-dripping
- Suitable for Use in Food Facilities



826-450G

825 - Glass Cleaner

An all-purpose, non-streaking, and high foaming action cleaner. It removes dusts, fingerprints, light oils, and residues, leaving surfaces bright and clean.

Features & Benefits:

- Non-streaking
- Complies with Consumer Product VOC limits
- High foaming action—sticks to vertical surfaces
- Variable valve allows user to control rate of flow
- Suitable for Use in Food Facilities



825-500G

WIPES

Dry Wipes

Features & Benefits:

- Strong and durable
- Solvent resistant
- Excellent absorbency and strength when cleaning up spills and cleaning solutions.
- Low to no-lint formation

Applications:

- Controlled environments
- Clean rooms
- Offices
- Laboratories
- General surface cleaning
- Equipment cleaning

828 - Optiwipes

General purpose wipes made of a soft, 100% hydroentangled polyester fiber recommended for cleaning lenses, precision instrumentation, and many other sensitive surfaces.



828-4x4

8282 - Hydrowipes

General purpose wipes made of a soft, 100% hydroentangled polyester fiber recommended for cleaning lenses, precision instrumentation, and many other sensitive surfaces.



8282-300

829 - Twillwipes

Restores old rubber parts by causing the rubber to swell, allowing dirt to come out of its pores.



829-4x4

Pre-Saturated Wipes

Features & Benefits:

- Plastic safe
- Strong and durable
- High quality cleaning solutions

Applications

- Office equipment & maintenance
- Computer monitor
- RV / Laptop/ Cell/Smart phone screens
- General surface cleaning

824 - Isopropyl Alcohol Wipes

Handy general purpose cloth type wipes pre-saturated with 99.95% isopropyl alcohol. They are highly anhydrous (without water) and hygroscopic (absorbs humidity), and readily scavenge water off surfaces and help to dehumidify surfaces.



824-WX25



824-WX50



824-WX500

8241 - Multi-Purpose Alcohol Wipes

General purpose wipes made of a soft, 100% hydroentangled polyester fiber recommended for cleaning lenses, precision instrumentation, and many other sensitive surfaces.



8241-T



8241-WX25



8241-WX50

824P-50 - Clean Pad

Thick lint-free wipes pre-saturated with 91% pure isopropyl alcohol and 9% deionized water. Ideal for cleaning sensitive contact surfaces.



8242-WX25 - LCD Cleaning Wipes

Specially formulated for optical devices. The gentle formula of these specialty wipes will clean effectively without leaving streaks.



8243-WX25 - Optical Wipes

Specially formulated for optical devices. The gentle formula of these specialty wipes will clean effectively without leaving streaks.



Cleaning Brushes

MG Chemicals brushes enhance the delivery of chemical cleaners and remove loose debris that cleaners alone cannot.

Features & Benefits:

- Durable
- Secured bristles eliminating bristle loss and contamination
- Strong handles

Applications

- Printed circuit board rework and cleanup
- Male and female connectors
- Electronic equipment
- Electronic repair
- Electrical cleaning
- Soldering
- Plant maintenance
- Office equipment maintenance

850 -Stainless Steel Cleaning Brush

A heavy-duty brush with stainless steel bristles and a wooden handle, great for cleaning soldering iron tips, cutting corrosion, and surface preparation.



853 - LARGE HOG HAIR BRUSH

A general cleaning brush with stiff hog hair bristles, and a wooden handle, like the 852, but with a large tuft, making cleaning large areas easier.



857 - CHISEL HOG HAIR CLEANING BRUSH

A hog hair brush with a short vertical plywood handle. Can be used dry or wet. Excellent for removing flux and general clean up.



851 - BRASS CLEANING BRUSH

A heavy-duty brush with brass steel bristles, and a wooden handle, great for cleaning soldering iron tips, removing oxides and corrosion from connector ends, and burnishing without removing base metal.



855 - HORSE HAIR CLEANING BRUSH

An inexpensive brush with soft horse hair bristles and a sturdy tin handle. Excellent for dusting, cleaning with fluids, and general cleanup.



859 - HORSE HAIR CLEANING BRUSH

A general cleaning brush with natural soft horse hair bristles and a wooden handle. Excellent for delicate cleaning tasks.



852 - HOG HAIR BRUSH

A general cleaning brush with stiff hog hair bristles and a wooden handle. Can be used dry or wet and works well with sticky or crusty materials. Great for removing flux, and general clean up.



856 - DOUBLE-ENDED HORSE HAIR CLEANING BRUSH

A double ended cleaning brush made of short natural horse hair bristles and a cad plated steel handle. Its short bristles make it ideal for heavy duty scrubbing. One end is chiseled to clean hard to reach and tight corners and the other is straight for precision cleaning and coating.



Cleaning Swabs

MG Chemicals brushes enhance the delivery of chemical cleaners and remove loose debris that cleaners alone cannot.

Features & Benefits:

- Soft and non-abrasive
- Bonded securely
- Strong shafts

Applications

- Printed circuit board rework and cleanup
- Electronic equipment
- Pharmaceutical operations
- Optical & magnetic heads
- Contacts and controls
- Connectors
- Office equipment maintenance

810 / 810D - CHAMOIS SWABS

The ideal swab for your audio/video magnetic heads and optical pick ups. Made from a lint free, synthetic suede bonded to a bendable ABS plastic handle it facilitates access to hard to reach areas. Available in single or double headed formats.



813 - FOAM SWAB

A durable precision cleaning applicator, shred resistant made from 100% urethane foam head with 100PPI porosity. Bonded securely to a 6" birch shaft providing extra strength when additional pressure needs to be applied.

811 - DOUBLE HEADED COTTON SWAB

A double headed low lint, extra absorbent U.S.P. pharmaceutical grade purified round cotton tip swab. Bonded on a 6" rigid white birch shaft for extra resistance when applying pressure is needed.



814 - RECTANGULAR FOAM SWAB

A large rectangular foam head bonded to sturdy handle for aggressive cleaning applications. Large shred resistant, 100% urethane foam heads with 100PPI porosity. Bonded securely to a 5 inch polypropylene shaft.



8112 - TAPERED COTTON SWAB

A double headed low lint, extra absorbent U.S.P. pharmaceutical grade purified tapered cotton tip swab providing added precision. Bonded on a 6" rigid white birch shaft for extra resistance when applying pressure is needed.



812 - FOAM OVER COTTON SWAB

A highly absorbent precision cleaning applicator. Shred resistant, 100% urethane foam heads with 100 PPI porosity over extra absorbent U.S.B. pharmaceutical grade purified cotton. Bonded securely to a 6" birch shaft providing extra strength when additional pressure needs to be applied.



812AS - ANTI-STATIC FOAM OVER COTTON SWAB

Antistatic foam heads over extra absorbent U.S.B. pharmaceutical grade purified cotton. Bonded securely to a 6" birch staff. Compatible with most solvents.



3D Printer Filaments

ABS

ABS 3D printing filaments are made of high purity Acrylonitrile Butadiene Styrene pellets. They resist higher temperatures and offer great machinability, flexibility and strength making it the preferred choice of engineers and professionals.

Offered in 1.75 and 3.0 mm diameters

PLA

Polylactic Acid or Polylactide (PLA) filaments are a corn based product made from high purity, high temperature pellets. It does not require a heated print bed and easily adheres to masking tapes. It is very hard, acetone resistant and can achieve faster print speeds and lower layer heights when properly used.

Offered in 1.75 and 3.0 mm diameters

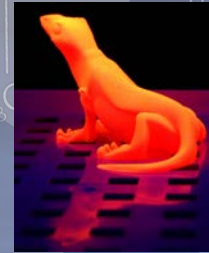
18 Colours to choose from



FLUORESCENT PLA

Fluorescent Polylactic Acid or Polylactide (PLA) filaments are filaments made from high purity, high temperature corn based pellets in which we incorporated a fluorescence formula that makes your print 'glow' under black light.

Offered in 1.75 diameter



GLOW / SUPER GLOW IN THE DARK ABS / PLA

The Glow/Super Glow in the Dark filaments are made from high purity pellets in which we incorporated a luminescent formula to provide a lighting effect in the dark by absorbing natural or manmade light.

Offered in 1.75 and 3.0 mm diameters



THERMOCHROMIC ABS / PLA

Thermochromic filaments are formulated to provide a discoloration effect when exposed to heat:

- Green colour changes to yellow at 31 °C [88 °F]
- Purple colour changes to red at 31 °C [88 °F]

Offered in 1.75 diameter



WOOD

Biodegradable filaments, can be sanded and painted and has a sweet odour of wood. It has the ease of use similar to PLA. It is highly recommended this product be used with 0.4 mm nozzles or larger to avoid clogging. Smaller nozzles require higher heat to avoid clogging.

Offered in 1.75 and 3.0 mm diameters



PETG

PETG filaments are a high strength thermoplastic with excellent moisture and chemical resistance. They are easy to use because of their low shrinkage properties and are excellent for applications where strong prints are desired such as mechanical parts fabrication and robotics.

Offered in 1.75 diameter



HIPS

Filaments made of high grade dissolvable High Impact Polystyrene pellets with a tight diameter tolerance. The HIPS filaments are used as stable support material for prints. HIPS support can be freed from ABS by simply immersing the object in d-Limonene.

Offered in 1.75 and 3.0 mm diameters

RTV Silicones

Silicone Adhesives / Sealants

Silicone-based adhesives outperform organic polymer adhesives, delivering greater flexibility, longer-lasting bonds and better seals even in harsh chemical environments and extreme temperatures. They provide excellent adhesion and bond strength to glass, wood, natural and synthetic fiber, painted surfaces and many plastics and metals.

IS SERIES

- For high temperature applications
- May be applied to horizontal, vertical and overhead surfaces
- One-component
- Thixotropic consistency
- Low temperature flexibility

RTV SERIES

- Use for:
 - Sealing
 - Bonding
 - Formed in place gasketing

WSC SERIES

- Used in numerous automotive applications

Silicone Potting Compounds

A diverse line of encapsulants / potting compounds that reliably dissipate heat from fragile components, while securing them from vibratory stresses and defending against moisture and chemical penetration.

Applications *

- For use in many types of applications:
 - General purpose electrical potting
 - High voltage power supply potting
 - Medical molds/instruments
 - Aerospace applications
 - Solar cell potting
 - Optical instruments
 - Applications requiring visual identification of
 - Potted assemblies
 - Food applications
 - High tensile strength applications
 - Exceptionally deep potting applications

* Not all products is suitable for all applications. Please consult our website to find the right product for your specific application type.

Silicone Primers

Primers are used to help promote adhesion to difficult-to-bond substrates. For most Momentive Performance Materials two-component products, a primer is required when an adhesive bond is needed between the silicone rubber compound and a non-silicone surface. All primers are one-component products requiring no mixing and are supplied ready-to-use as easily pourable solvent solutions.

SS4044

- For use with metals (such as aluminum, copper, steel, stainless steel, brass, and galvanized metals), porous materials, unglazed ceramics and wood.

SS4120

- Helps promote adhesion of Momentive Performance Materials addition cure RTVs and is used where clarity is needed.

SS4155

- General purpose primer for use with any RTV.

3D Printer Chemicals & Accessories

d-LIMONENE PURE GRADE

A colourless liquid made from 100% pure natural citrus oils. It is ideal for dissolving HIPS when used as a support within 3D printed pieces. Extracted from natural fruits it releases a pleasant citrus smell when exposed to ambient air.

Features & Benefits:

- 100% citrus oil
- Dissolves HIPS support filaments
- Biodegradable



433-1L



433-4L

ACETONE

A superfast drying, VOC exempt and zero residue solvent. It is ideal for use in 3D printing. ABS dissolved in acetone, when applied to a print bed, can improve adhesion and reduce print warping. The acetone can also be used to smooth and weld the surface of finished ABS prints.

Features & Benefits:

- Fast Evaporation Rate
- Dissolves ABS plastic to make a slurry for use on print beds when printing with ABS filaments
- ABS Smooth finishing agent
- ABS plastic welding agent
- Highly miscible with other common organic solvents
- VOC exempt



434-1L



434-4L

MASKING TAPE

High temperature masking tape is made from 8 mils beige crepe paper coated with a rubber adhesive designed for 3D printers heated beds. It is specifically designed to be heat resistant and provide superior print adhesion while allowing easy removal of completed objects. It also provides protection for the bed, while making clean up simple. It works excellent with PLA, Wood, PETG, ABS and many other 3D printing materials.

Features & Benefits:

- Low thickness variation
- Strong heat resistant rubber adhesive
- Superior print adhesion
- Easy object removal
- Protection for 3D printer bed
- 4" width



MAS100-15

POLYIMIDE TAPE

Polyimide film is a lightweight, flexible crystalline film with a silicone adhesive designed for 3D printers heated beds when using ABS and HIPS filaments and perfect for applying ABS slurry. It works well at low temperatures, does not soften when submitted to heat and provides an excellent release surface at elevated temperatures. It offers superior tensile strength, good elongation and is chemical resistant. It also serves as a printer bed surface protector. Available in 4 in. and 8 in.

Features & Benefits:

- 2 mils thick
- Silicone adhesive
- Very high heat resistant
- Superior tensile strength
- Eases release of heated objects
- Protects printer bed
- RoHS and REACH compliant
- 4" or 8" width



POL100



POL200

Prototyping Equipment & Chemicals

416-K - PHOTOFABRICATION KIT

A 9-piece set of items needed for producing a printed circuit board using positive photofabrication.



416-ES - ECONOMY ETCHING PROCESS KIT

Accommodates two 8"x 9" double sided CCB's. Ideal for students and hobbyists. An inexpensive etching solution.



416-T - TRANSPARENCY FILM

8½" x 11" heat stabilized film sheets for use in most laser printers



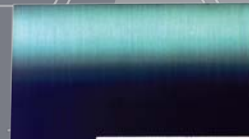
500 SERIES - COPPER CLAD BOARDS

Made of a laminate consisting of continuous woven glass cloth impregnated with epoxy resin. The boards are made of FR4 which is a flame retardant version of G-10



600 SERIES - POSITIVE PRESENSITIZED COPPER CLAD BOARDS

Made of a laminate consisting of continuous woven glass cloth impregnated with epoxy resin. The boards are made of FR4 which is a flame retardant version of G-10



410 - AMMONIUM PERSULFATE

Copper Etchant Ammonium Persulfate crystals are used as an alternative to the traditional ferric chloride to produce a cleaner copper etchant solution. One kilogram of crystals will produce four liters of etching solution when mixed with water.

410-1kg



415 - FERRIC CHLORIDE

Ready to use solution designed for etching printed circuit boards and other metals.



415-500ML



415-1L



415-4L



415-20L

418 - POSITIVE DEVELOPER

For removing exposed resist during the positive photofabrication process



418-500ML

421 - LIQUID TIN

Quickly tinplates copper circuits on PC boards in 5 minutes or less at room temperature.



421-125ML



421-500ML

Why MG Chemicals?

- ➡ Sustainable: 62 years in business
- ➡ International presence
- ➡ Broad range of products
- ➡ In house R&D professionals
- ➡ Quality products
- ➡ Competitive pricing > attractive value proposition
- ➡ Professional technical support
- ➡ Extensive Marketing support (Collateral, product images and more)
- ➡ World Class Customer Service
- ➡ Fast and reliable shipping

