



**ALVIN
PRODUCTS**

Lab-metal

Hi-Temp Lab-metal

Lab-solvent

Heat Block

Telcon

Galvax



Quality repair and maintenance products for industry.

Since 1950.



Lab-metal

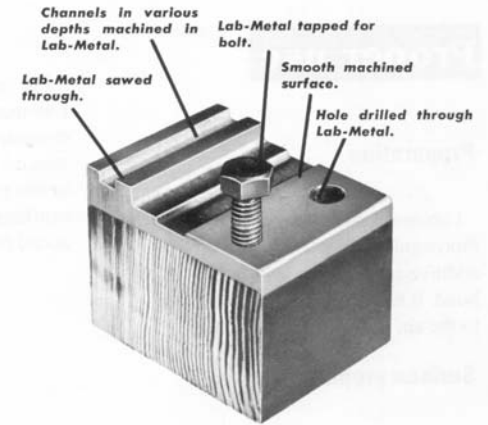
A ready-to-use, aluminum filled repair and patching compound

Easy to use

- No measuring or mixing of components required
- Ready to use right from the can
- No special tools or skills required

Versatile

- Adheres to any clean and dry metal, wood, glass, porcelain, or hard plastic surface
- Spreadable, paintable, sprayable



Actual photo:
Lab-metal laminated on wood block

• Durable

- Once hardened, it can be milled, drilled, tapped, sawed, filed or sanded
- Not affected by mild acids, gasoline, oil or petroleum based solvents
- Rustproof, water resistant
- Withstands temperatures as high as 350 deg. F (177 deg. C)
- Shelf life: 2 years in factory sealed can. May be extended with Lab-solvent
- Will not shrink, chip, crack, peel or pop out under normal conditions



Hi-Temp Lab-metal

- Hi-Temp Lab-metal withstands temperatures up to 1000 deg. F. (538 deg. C.) after heat hardening
- Physical characteristics are the same as regular Lab-metal
- May be thinned with Lab-solvent for brush-on applications
- **Drying time:** Allow to harden for at least 24 hours at room temperature, then heat treat @ 425 deg. F (218 deg. C) for 1 hour.
- **Shelf life:** 1 year in factory sealed can





Lab-solvent

- **Thinner for Lab-metal & Hi-Temp Lab-metal**
- **A blend of toluene & acetone**
- **Excellent cleaner & degreaser for surface preparation**
 - **Remember:** surfaces must be clean and dry for Lab-metal products to adhere properly
- **Pour a little over the top of unused Lab-metal before resealing**
 - Shelf life can be extended as long as Lab-metal is kept moist with Lab-solvent





Lab-metal

Markets & Distributors

- **Uses for Lab-metal can be found in many industries:**
 - Foundries
 - Powder Coaters
 - Welders, Fabricators, Metalworkers
 - Construction, Transportation
 - Machine & Body Shops
 - Power Plants, Factories
 - Transportation
 - Agriculture, Equipment
 - Woodworking / Woodturners
- **These markets (and more) are served by distributors including:**
 - Industrial Supply
 - Welding Supply
 - Woodworking Supply
 - Marine and Construction Supply
 - Plumbing Supply
 - and even the Do-It-Yourself market through Hardware Stores, Home Centers and Automotive Supply Stores

Users of Lab-metal products

- Air conditioning contractor
- Aluminum fabricators
- Aluminum products
- **Auto repair / restoration shops**
- Bearing users
- Concrete construction forms
- Contractors' equipment & supplies (and repairing)
- Dairies
- Die casting / dies
- Dish washing machines – repairing
- Electric contractors
- Display designers and producers
- Forgings
- **Foundries**
- Heating contractors
- Hydraulic shaft repairing
- Machine shops
- Machine tools
- Machinery / equipment manufacturing and repair
- **Metal building contractors (pre-cut / pre-fab)**
- **Metal finishers**
- **Metal furniture manufacturers**
- Metal sculptors
- Metalworking specialties
- **Metal window and door producers**
- Molds / plastic molds
- **Ornamental metalworkers**
- Partitions
- Pattern makers
- Plastic molders
- Plumbing contractors
- **Powder coaters**
- Sheet metal products / producers
- **Sheet metal workers**
- Sign manufacturers
- Sign maintenance and repairing
- Steel fabricators
- Truck repairing and service
- **Welders**



Lab-metal in action



Blades of a Francis Runner (a type of turbine used in **power generation**) being resurfaced

Lab-metal in action

**Welding and
fabricating industry**



Before sanding

After sanding

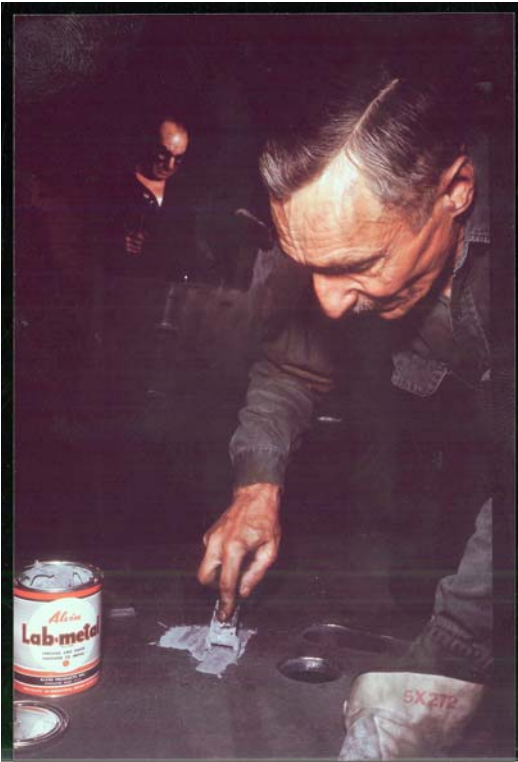


Lab-metal being used to smooth over rough welds



Lab-metal in action

Foundry and metalcasting industry



Lab-metal has been used since 1950 to patch flaws in metal castings. Hi-Temp Lab-metal is used by foundries for core box repairs.



Lab-metal in action



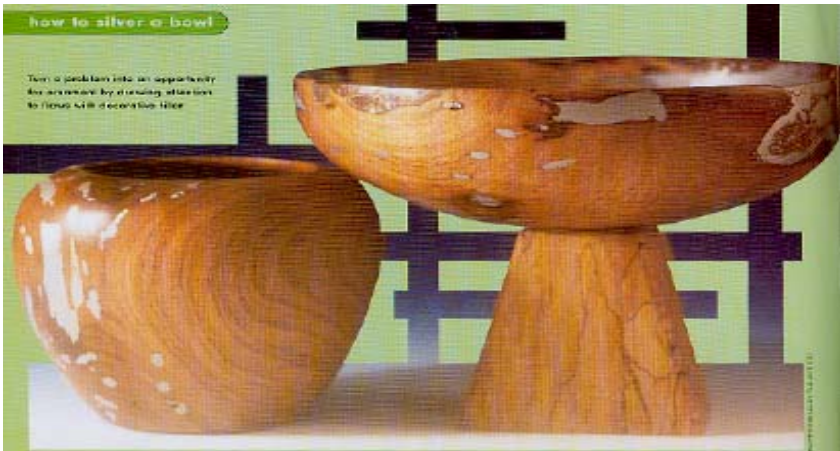
Transportation industry



Lab-metal repairs pitted and corroded train caboose railings.

Lab-metal in action

**Woodturning, metal sculpting applications:
Lab-metal is used in artistic, decorative
and ornamental metalwork.**



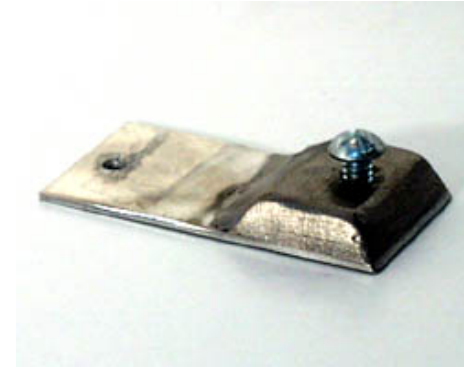
“Silvering”: Woodturners use
Lab-metal as a decorative filler



**Sculpture made of Lab-metal
on display in a museum**

Lab-metal application tips

- **Thinning:** One part Lab-metal to one part Lab-solvent provides a good brushing consistency.
- **Smoothing:** When using Lab-metal as a body filler, dip the applicator into Lab-solvent to enhance spreading.



- **Building up:** For thick applications or deep holes, apply Lab-metal in thin layers, allowing each to harden before applying the next layer.
- **Adhesion:** Lab-metal adheres to any clean, dry metal. Lab-metal will not bond two parts together; curing requires exposure to air



Hi-Temp Lab-metal in action

Powder coating application:

Cast iron lion statue repaired with Hi-Temp Lab-metal, then powder coated.



Hi-Temp Lab-metal tips

- **The heat cure:**
After Hi-Temp Lab-metal is fully air dried to a hard metal state, it must be heat hardened at 425°F for one hour. This must be completed prior to the powder coating process.



- **Improper cure:**
If the air dry or heat cure process is rushed or ignored, outgassing may occur.

Heat Block

Alvin Heat Block is a **heat absorbing paste** or **heat sink** which insulates against unwanted heat transfer during welding, soldering, brazing or other heat treatment.



- **Saves time & money**
 - Eliminates need for disassembly of parts
- **Safe to use**
 - Non-toxic, gives off no fumes when subjected to heat
 - Harmless to skin
- **Reduces hazards**
 - Helps prevent burns
 - Reduces fire hazards
 - Used by fire officials for training and fire prevention exercises.



Heat Block

What is it for?

- To prevent unwanted heat transfer and damage
- Typically used in welding or soldering operation to avoid damage to attached or nearby components
- **Used by:**
 - Welders
 - Automotive & Marine repair technicians
 - Plumbers
 - Electricians
 - Appliance repair technicians
 - Do-It-Yourselfers



Heat Block

Common Applications

- **Automotive**
 - protect painted surfaces, wiring & tubing
 - protect thin sheet metal against distortion
- **Welding & Soldering**
 - prevent surface discoloration of stainless steel
 - protect surrounding surfaces from flame
 - prevent damage to valves, gaskets & seals
 - protect plastic piping
- **Shipboard**
 - protect bulkheads when welding in close proximity
 - protect nearby cables & wires during repairs



Telcon

- Dry lubricant and release agent.
- Coats and lubricates with a clean, tough, semi-transparent shield.
- Eliminates sticking, binding, squeaking.
- Apply to metal, wood, plastic, glass, rubber -- anywhere sticking is a problem.
- Telcon resists temperatures to 500°F, repels water and oil, and will not collect dust or dirt.
- Telcon makes things work smoothly.
- No noticeable transfer from mold to part; coatable.
- Contains no silicones and no ozone depleting chemicals.



11 oz. aerosol
Also available in
gallons



Telcon

Applications

As a dry lubricant, use on:

- screws, nuts, and bolts
- door latches, hinges, locks
- drill bits, cutting tools, saw blades
- lathes and power tool guides, ways and beds
- bindery machinery
- pipe threads and hose couplings

As a release agent, use for:

- epoxies
- phenolics
- polyurethanes
- rubber
- resin impregnated fabrications

As an anti-spatter, spray on:

- welding nozzles and tips
- spatter zone



Galvax

- **Zinc rich cold galvanizing spray**
- Primer / topcoat protects steel from corrosion
- Rustproofs welds, bridges, fences, wrought iron, guard rails, gutters, structural steel, exposed ferrous metal.
- Zinc-rich epoxy meets SSPC Paint Specification Number 20, Zinc Rich Primer (Type II, Organic).



12 oz. aerosol
Also available in
gallons



Distributor Support

- Free Lab-metal sales material
- Application stories
- Joint promotions
- Trade journal advertisements
- Product news announcements
- Customized literature





Alvin Sales Tools

FREE to distributors:



**Lab-metal Counter
Display Can**



Lab-metal Poster



**Point-of-Purchase
Display Box**
(or order with product
as shown)

Application story

Powder-coatable metal repair compound patches flaws in metal castings and furniture

Alvin Lab-metal application news

Foundries, metal furniture manufacturers, and metal fabricators have entered the powder coating age and discovered that Lab-metal is perhaps the only metal dent filler that stands up to the powder coating baking process.

Powder coating is an advanced and environmentally friendly method of applying a decorative and protective finish. The powder used in the process is a mixture of finely ground particles of pigment and resin, which is sprayed onto a surface to be coated. The charged powder particles adhere to the electrically grounded surfaces until heated and fused into a smooth coating in a curing oven.

The result: a uniform, durable, high quality, attractive finish. According to the Powder Coating Institute, "powder coating is the fastest-growing finishing technology in North America, representing over 10% of all industrial finishing applications."

When powder coating, metalcasters and metal fabricators cannot use most of the two-part epoxies, plastic body fillers or silicone caulking materials once used to



Lab-metal (for repairs to 350°F, or one-time exposures to 425°F), Lab-solvent (thinner, metal cleaner), and Hi-Temp Lab-metal (withstands temp's to 1000°F). Shown above with powder coated metal pieces.



Before and after: A metal furniture manufacturer uses Lab-metal to smooth over rough welds and joints prior to powder coating.



Apply Lab-metal. Air dry. Sand smooth. Paint or powder coat.

cosmetically patch their parts, because of the powder coating oven temperatures. Two dent fillers proven successful in powder coating are becoming the industry choice for solving metal patching problems: **Lab-metal** and **Hi-Temp Lab-metal**.

The imperfect metal surface is sanded, then cleaned with Lab-solvent.



The metal flaw is patched with Lab-metal, and after air drying, the hardened Lab-metal is sanded to a shiny aluminum finish.

Lab-metal is used by industries such as metal furniture manufacturers and foundries to smooth over rough welds, hide weld beads, patch dents, voids, cracks and other surface blemishes and imperfections. Ready-to-use in the can (or caulking tube), the metal repair and patching compounds are spread onto the clean metal surface with a putty knife, air

Application tips: Lab-solvent is used to thin Lab-metal and Hi-Temp Lab-metal, to clean the application surface, and to extend the shelf life of the repair putties.



When applying Lab-metal, keep the applicator moist with Lab-solvent to enhance spreadability. This is especially helpful when using Lab-metal as a body filler.

dried, then sanded to a metallic finish.

Lab-metal's unique one-part formulation is less expensive and easier to use than two-part epoxies. With Lab-metal, there is "no mixing, no measuring, no mess, and no waste".



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Lawrence, MA 01843
(978) 975-4580
(978) 975-2621 FAX
www.AlvinProducts.com
e-mail: sales@AlvinProducts.com

Promotions

Metal patching compounds solve hundreds of repair problems!



Product summary

Lab-metal and **Hi-Temp Lab-metal** are one part, ready-to-use metal repair and patching compounds used to cosmetically fill and smooth rough welds, surface imperfections, defects and dents in metal parts. **Lab-metal** is a preferred body filler, providing a durable aluminum surface (not a plastic or epoxy based surface).

Lab-solvent is used as a surface cleaner/prep and thinner for **Lab-metal** and **Hi-Temp Lab-metal**. It extends the shelf life and working time of the air-dry dent fillers.

Compared to other repair products

Two part epoxies require mixing of a resin and catalyst/hardener. Unused material is wasted. Compared to **Lab-metal** and **Hi-Temp Lab-metal**, plastic body fillers are not as hard, durable or heat resistant, and often shrink, blister and outgas when exposed to high temperatures.

Both **Lab-metal** and **Hi-Temp Lab-metal** provide durable, heat resistant metallic repairs. **Lab-metal** withstands temperatures to 350°F (up to 425°F for 20 minutes); **Hi-Temp Lab-metal** withstands temperatures to 1000°F.

Users

Lab-metal, **Hi-Temp Lab-metal** and **Lab-solvent** are used by welders, foundries, powder coaters, fabricators, ornamental iron workers, OEMs and factories.

Ordering the Point-of-Purchase display

Contents:

- 3 each 24 oz. **Lab-metal**
- 1 each 24 oz. **Hi-Temp Lab-metal**
- 4 each 16 oz. **Lab-solvent**



Fax purchase orders to:

P-O-P Display Kit

Trade journal publicity

DEVELOPMENTS
New Equipment, Processes, and Materials

DIGITAL FLOW CONTROL

Nordson Corp.
www.nordson.com



The iControl Integrated Control System builds on Nordson's extensive controls knowledge and technology to integrate all powder control functions into an easy-to-operate, single system. The system incorporates more user-friendly features such as a new preset table for easier entering and editing of gun parameters, as well as new purge features to give powder coaters even more enhanced capabilities for optimal system performance and maximum line efficiency. iControl technology can be customized to provide digital control of all application parameters - voltage, current, triggering, and air flow control - through a single, user-friendly operator interface. A digital flow module provides for closed-loop airflow control for flow air and atomizing air, and automatically adjusts for fluctuation in air pressure input.

Circle 301 on reader service card

MICRO-ABRASIVE BLASTING PROCESS

Comco Inc.
www.COMCOinc.com

Using a variety of blasting media and small nozzles in the 0.018- to 0.080-in. range, Comco's "pencil-blast" process offers solutions to a variety of production problems in



electronics manufacturing. Applications include cleaning contaminants and oxides from ceramic insulators and components, removing paper diffusion mask residue from silicon substrates, cutting slots and shapes in fragile materials such as silicon wafers and crystalline substrates, material removal of fine microburrs from waveguide packages, and surface preparation or texturing of pads on transducer circuitry for improved bonding.

Circle 302 on reader service card

DENT FILLER

Alvin Products Inc.
www.alvinproducts.com



Alvin's Lab-metal, a one-part dent filler, solves difficult exterior patching problems in the metal finishing industry. Lab-metal spreads like paste and hardens into metal, simply by exposure to air. The aluminum-filled repair and patching compound cosmetically fills, seals, patches, and smoothes dents, cracks, pinholes, and welded seams. It withstands temperatures as high as 350°F and is not affected by cold to

-40°F. Lab-metal is rust resistant and is impervious to gasoline.

Circle 303 on reader service card

DIGITAL SENSOR AND CONTROLLERS

Hach Co.
www.hach.com



Hach's new digital sensor family and SC100 common controller make multiparameter measurements easier. The SC100 accepts any combination of digital sensor input. Just plug the sensors into the SC100 and you are ready to go. No programming is needed, the SC100 automatically recognizes each digital sensor. The SC100 features two digital inputs and has the capability to incorporate up to eight digital sensors on one controller. New digital probes currently available include Hach LDO™, pH, Conventional pH, Electrodeless Conductivity, Contacting Conductivity, Nitrate, membrane DO, and SAC UV-254. New probes will continue to be added.

Circle 304 on reader service card

VISCOSITY CONTROL SYSTEM

Norcross Corp.
www.viscosity.com

The VISC6000 Viscosity Control System is a simple, low-cost, and dependable control system for monitoring and controlling the viscosity of lacquers, adhesives,

Lab-metal repair and maintenance products are regularly featured in powder coating, metalworking automotive, and other industry trade journals.

Metal Finishing Magazine

Trade journal publicity

Fabricator Magazine

What's Hot?

New Products

including Amada tools without an adapter and Timpf tools using an optional adapter.

Standard equipment for the KSP 600/33 includes two tool holders, a foot control, punching tools, a software package including dongle, control panel and monitor unit, disk drive light curtain, automatic lubrication system, removable waste receptacle and custom safety systems.

Contact: Knuth Machine Tools USA Inc., Ph: 847-229-0600; Web: www.knuth-usa.com.

Security crash gates
Van Noorden Gate Systems

New from Van Noorden are custom designed, engineered, and installed security crash gates that provide resistance up to k-12 and can include a variety of access control alternatives. The gates are designed to withstand the impact of a 15,000 pound vehicle traveling at 50 miles per hour. The gates feature Van Noorden's Power Hinge™ or Power Pivot™, concealed hydraulic actuators. Each leaf can match

any architecture and be up to 12 feet wide by 20 feet tall and weigh up to 4 tons. Gates can include remote access control alternatives and are designed to open and close automatically over 3 million times.

Contact: Van Noorden Gate Systems, Ph: (508) 541-9123; Web: www.vngates.com.

More container sizes of dent filler
Alvin Products Inc.

Lab-Metal ready-to-use repair and patching compound, a unique metal body filler, is now available nationwide in seven different sizes, including a 20 ounce caulking tube. Lab-metal requires no two-part mixing and hardens when exposed to air.

Contact: Alvin Products Inc., Ph: (978) 975-4580; Web: www.alvinproducts.com.






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Fabricator • January/February 2005

Product news



METALWORKING INDUSTRY PRODUCT NEWS ANNOUNCEMENT

Lab-metal repair and patching compound, now in a tube, solves high-heat patching problems for welders, fabricators and powder coaters

Since 1950, welders and metal fabricators have used Lab-metal ready-to-use repair compound to fill dents and smooth over welds. In 2002, the aluminum-loaded dent filler has emerged as a product leader in the young powder-coating industry, which demands heat-resistant cosmetic repairs to metal parts prior to the powder coating process. Lab-metal is an air-dry product, packaged in metal containers and *now in caulking tubes*. Lab-metal withstands temperatures to 350°F (or one-time exposures to 425°F). Its high-temperature companion, Hi-Temp Lab-metal, available in three sizes, withstands temperatures to 1000°F after the air-dried product is heat-hardened.

Lab-metal provides quick, neat cosmetic repairs for metal fabricators, metal furniture manufacturers, OEMs, powder coaters, plumbers, auto restorers, machine shops, foundries, and do-it-yourselfers. It is the metalworker's choice



for filling, sealing, patching and smoothing dents, cracks, pinholes, welded seams, and hundreds of repair applications. Lab-metal, newly packaged in handy caulking tubes, replaces body fillers, latex and silicone caulks which simply cannot take extreme heat.

Lab-metal is sold through welding, foundry, industrial, hardware, and woodworking supply distributors throughout North America.

Full-line literature

Lab-metal®



Metal repair putty. Ready-to-use aluminum-filled repair and patching compound. Spreads like paste, hardens into metal. Adheres to metal, wood, plastic, glass, fiberglass and more. Apply right from the can. No mixing of two parts, no measuring or heat required. Lab-metal can be milled, drilled, tapped, ground and sanded smooth. Will not shrink or crack. Water resistant, rustproof. Withstands heat to 350°F (up to

425°F for single exposures no longer than 20 minutes). Thin with Lab-solvent for brushing or spraying. Many applications may be made from a single can – simply add Lab-solvent before covering. Spreading or shaping Lab-metal (auto body work, sculpturing) is enhanced by keeping applicator moist with Lab-solvent while spreading. Durable, permanent filler for patching seams and cracks; rebuilding worn metal surfaces; repairing dented metal; finishing welds; filling holes and imperfections in metal castings. **Packaged in 6 oz., 12 oz., 24 oz., 48 oz., gallon, and 5 gallon containers. Also available in handy 20 oz. caulking tubes.**



Hi-Temp Lab-metal®



Repair compound for high-heat applications. One-part metal putty able to withstand temperatures to 1000°F. Apply directly

from the can with a putty knife. Can be machined, ground, filed, and sanded. Repairs items prior to lengthy or repeated powder coating processes. Ideal for repairs in powder coating, metalworking, welding, fabricating, heating,

construction, die casting, and mold refinishing which may be subjected to high temperatures. Used to repair fabricated parts, core boxes, boilers, mufflers, exhaust systems, molds, wood and coal burning stoves, grills, engines, radiators, and industrial ovens. **Packaged in 14 oz., 24 oz., and gallon containers.**

Lab-solvent®



Thinner for Lab-metal, metal cleaner.

A blend of solvents for thinning Lab-metal to paint consistency for brushing or spraying. Surfaces cleaned with Lab-solvent provide superior adhesion for Lab-metal and Hi-Temp Lab-metal. Cuts and flushes oil, grease, and dirt off of precision tools, bearings, gears, motors, condensers, controls, and other valuable equipment. Leaves no film and does not corrode. **Packaged in pint, gallon, and 5 gallon containers.**

Heat Block



Heat Sink. Safe, cost-saving heat absorbing paste. Easy to use, non-toxic, protects against heat damage. Prevents unwanted heat transfer during welding, soldering, brazing and other heat treatment. Used in the welding, automotive, plumbing, shipyard, HVACR, and other specialized industries. **Packaged in pint, quart, gallon, and 5 gallon containers.**

Galvax®



Zinc-rich cold galvanizer. Protects metal surfaces. The 95% pure zinc cold galvanizing compound electrochemically bonds with metals to stop rust creepage and corrosion. Sprays or brushes on cold. Heals itself when scratched. A coating of Galvax is comparable to hot-dip galvanizing for metal protection. Cures damaged hot-dip coatings and repairs damaged galvanized surfaces. Used for welding touch-ups and spot-priming. **Packaged in aerosol and gallon containers.**

Telcon®



Mold release and dry lubricant. Provides a clean, tough, invisible shield. Oil free, greaseless, stainless, colorless. Use as a mold release for molded rubber, epoxy resins, and other polymers. Lubricates with a film that is water, oil, and dirt repellent, and has outstanding anti-stick qualities to make moving parts last longer and work more easily. Use as a lubricant for sliding or threaded parts, precision instruments, cutting edges. Speeds clean-up in areas of frequent sticky product spillage. Withstands temperatures up to 500°F and down to cryogenic range. Can be sprayed, brushed, or dipped. **Packaged in aerosol, gallon, and 5 gallon containers.**

Thank you

We are grateful to our distributors for your ongoing sales and marketing efforts, and to our end users for solving your repair and maintenance problems with the Alvin line since 1950.



**ALVIN
PRODUCTS**