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## City Proves

continued from page 40

The outfield is mowed at 1¼ inch and the infield at one inch.

Their final step to improve the turf during the busy season was to pregerminate perennial ryegrass seed to fill in divots after games. "We have a problem with the area in front of the mound and along the outside of the base paths," explains Bowman. "Grounders hit in front of the plate during games and practice really do a job on the turf. If you don't keep up with that area, it gets almost bare after a couple of months. We're going strong for nine months, so we have to do all we can to keep grass grow-

ing there. We usually resod this part of the infield before the Connie Mack World Series."

Despite all these basic improvements, Ricketts Park is used for three months in the winter while the turf is dormant and the irrigation system is drained. "We get freezing temperatures into March and can't risk damaging the pipes," explains Bowman. Still, beginning in January the high school is practicing five days a week. As the team plays its first games in March the bluegrass is just coming out of dormancy starved for moisture.

"As soon as we can, we aerate the field heavily, fertilize and irrigate to help the turf

come out of dormancy quickly," states Bowman. Any deficiencies revealed by soil tests during the winter are corrected. "We mow the stadium starting in March even though we don't make our first cut in the parks until April. The temperature still drops below freezing at night." By the end of May, the crew applies Trimec to eliminate broadleaf weeds that invaded the field in the winter and early spring.

During May, after just one month of strong growing weather, the Mickey Mantle and Connie Mack leagues start sharing the stadium with the high school. "We're busy seven days a week from May 1 to end of August, from 1:30 in the afternoon to 10:30 at night," says Bowman. "By June, the temperatures are into the '90s. We have both practices and games during the day and games almost every night."

The activity on the city's 13 other softball and baseball fields is just as intense, not to mention the golf course. Adding to the work load the past four years was construction of new neighborhood parks. As new subdivisions are completed, land set aside for parks has to be converted into playgrounds. "You'd think with the depressed oil and gas market, everything would stop," Bowman said. "But not here. The community has backed parks all the way, even passing a five year, \$7.2 million sales tax. We're going to build another 18-hole golf course, a four-field soccer complex, a swimming pool and develop the river front into a large park."

But as August rolls around, the entire community focuses its attention on Ricketts Park. Two weeks prior to the Connie Mack World Series the park is closed for preparation. Bowman pulls up to eight crewmembers from the park field crew over to Ricketts to help Wilson and Eaton. "We resod worn areas, overseed with pregerminated seed and cut new edges," he states. "The mound and batter's box are rebuilt after we realign the bases. After doing another soil test, we usually give the field a shot of liquid chelated iron to green it up. Members of the Connie Mack Homerunners Club come over at night to prepare the concessions. With the proceeds of the concessions the club helped provide the facility with a new scoreboard in center field. It's a real community effort."

Park Director Hudson also devotes his full attention to Ricketts working with AABC to promote the event across the nation. Homes are lined up for the players. Press boxes and hotels are readied for sports reporters from across the country. A 16-game, double elimination tournament is carefully scheduled to allow 30 minutes between games for field work. Billboards and the scoreboard on the outfield fence are touched up. The stadium gets a fresh coat of paint while the concessions and restroom facilities are polished. By mid-August, Ricketts Park and field look almost new.

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place. "Since that is our rainy season," says Bowman, "we tarp the infield at night when clouds move in and leave the covers on the bases, mound and batter's box except during games. We baby the dirt, wetting it down two or three times a day. We also watch closely for any signs of disease since humidity is up and temperatures hang in the 90s. So far, the bluegrass hasn't let us down. The vacuum system on the rotary mower puts a nice pattern on the outfield even if we don't mow that day."

After a month of constant hustling and the championship game, the park crew has one more assignment at Ricketts—to get it ready for a circus. That's right, elephants, horses, clowns, acrobats and all their paraphernalia. "The circus makes for a nice end to a busy year," Bowman remarks. "The only thing hard to take is seeing the elephants and horses tromping across that



Jeffrey Bowman with Baseball Diamond of the Year Award.

beautiful field. Fortunately, we have three months of good growing weather with no events to let the turf recover."

In September, the field is aerated, fed with a complete fertilizer, drill-seeded with a mixture of perennial ryegrass (75 percent) and Kentucky bluegrass (25 percent). Irrigation continues two to three times each week until temperatures fall in November and the system is drained. "We try to avoid lush growth in the fall to let the turf go dormant slowly," Bowman explains. "We want the turf to develop roots instead of foliage so it can withstand the late winter practice schedule. We make sure the micronutrients are there for the roots."

Farmington's position as a central figure in amateur baseball is secure, according to AABC's Cooper. "The Connie Mack World Series in Farmington is one of the finest amateur baseball events in the country played on one of the finest diamonds," he boasts. "Maybe the guy from *Sports Illustrated* was right, maybe the spirit of Geronimo is there watching over Ricketts Park."

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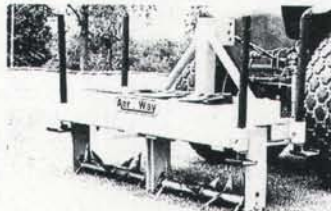
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# CHALKBOARD

## TIPS FROM THE PROS

### BASEBALL INFIELD RENOVATION: DON'T WAIT UNTIL NEXT SPRING

By Mike Hebrard

**Y**ou might think that summer is too late to be thinking about adding or rebuilding baseball fields. After all, high school and college teams are finishing up their spring seasons. Coaches and maintenance crews are ready to turn the fields over to summer baseball leagues. Even if they wanted to make improvements, they can't get back on the fields until the end of August or early September.

But you can do something — you can put together a plan of action for the fall that benefits both the school and the summer leagues. You provide the expertise and the summer leagues drum up support for new construction or renovation.

Groundskeepers often hit a brick wall when they ask for money for turf renovation. They have the skill to make the improvements, but fall short when it comes to raising funds. Kids and coaches in summer baseball leagues know very little about field maintenance, but they are experts on car washes, candy sales, raffles, and other types of fund raising. Give them a goal, and they'll go to every door in their neighborhood to raise funds. Working together, groundskeepers and summer leagues can do wonders.

One small wonder that brings new excitement to baseball is a bright, new infield. Perennial ryegrasses make infield renovation less expensive and nearly as fast as resodding. They have the ability to recover from wear more efficiently. What's more, there is no better time to rebuild infields than in September and October. Why rush the fields into shape in the spring when soil temperatures are too low for good germination? Get a six-month head start.

With the groundskeeper's expertise, the school's equipment and materials purchased by the league, an infield can be built (or rebuilt) for about the cost of brick dust.

The first step is to clear the field site of all existing vegetation. This is easily accomplished with one or two applications of glyphosate (Roundup). By adding a dye or spray pattern indicator to the herbicide solution you can eliminate missed patches. If you have a sod cutter, you can cut and remove the old turf and thatch just a few days after treating the field. If not, wait a few weeks to let the turf, tillers and roots begin to decompose. While waiting, send soil samples to a lab for testing and stake out the location of home plate and the foul lines (see "Baseball Field Alignment, March SportsTURF").

The biggest job of the project comes next. Till two inches of organic compost into the top six to eight inches of native soil. This amounts to about 20 cubic yards of compost per infield. Check with sewage treatment plants in your area to see if they compost sludge with sawdust. You need compost with a fine consistency — no large chips or chunks.

Level and roll the amended soil. The infield should be virtually flat. Rainfall should drain through the soil, not run off. To keep the field draining properly, aerate and topdress at least twice a year.

Lay out the field, mark foul lines and measure off the locations of the bases and the pitcher's mound. Now is a good time to install a live water source behind the mound if one does not currently exist. This enables the infield dirt to be wet down without dragging a hose across the base lines.

Use a power edger with two blades separated by a washer to cut grooves in the soil where the grass edges will be. The dirt should be a little moist to obtain a clean cut.

The foul lines do not have to run down the center of the dirt base path. I like to have turf eight inches inside the base line and roughly three feet outside the foul lines. This way you can smooth the dirt outside the base line quickly with a rake and eliminate much of the raking inside the base line. It also keeps dirt lips from building up on the infield turf.

Select a mixture of two or three varieties of turf-type perennial ryegrass recommended for your part of the country. You'll need about 80 to 100 pounds to do one infield. Seed is the least expensive part of the job. After all the preparation, the worst thing you can do is cut corners on seed quality.

Apply six to seven pounds of seed per 1,000 square feet with a drop spreader, starting at the groove around the pitcher's mound and walking in larger and larger circles until you reach the edge of the base paths. Seed from the drop spreader will fall nicely into the groove you cut. Improved germination in the groove results in a nice, sharp edge. Finish off the corners and switch to a rotary spreader. Put down another two pounds of seed per 1,000 square feet in parallel lines across the infield to fill in any spots you might have missed with the drop spreader.

Topdress the seed and soil with organic mulch or a mixture of organic mulch and coarse sand. The sand keeps the mulch from clumping up.

Set the irrigation cycle to keep the infield moist without causing puddles. Seed will float and run off with the grade if too much water is applied at one time. The seed will germinate in seven to ten days as long as daytime temperatures average 60 degrees F. or higher.

If turf in the area has previously been attacked by turf diseases, you may want to apply a fungicide and select a blend of ryegrasses with improved disease resistance. The main diseases that infect ryegrass are *Pythium* blight, *Rhizoctonia* brown patch, *Helminthosporium* brown blight, crown rust and *Corticium* red thread. Your chemical dealer can help you select an effective fungicide.

Don't wait until the turf has grown three or four inches tall before mowing. Mowing with a light reel mower knocks the tops off the young plants and encourages them to tiller out faster. A well-adjusted and well-oiled push reel mower does the job nicely. Make sure the blades are sharp and mow in two directions (cross mow).

After four weeks, or as soon as the turf is firm enough, switch to a powered, walk-behind reel mower. Again, make sure the blades are sharp. If the same mower is used on other fields, wash it off thoroughly before mowing the new infield to prevent the spread of diseases and weed seed.

A grass infield should be mowed a minimum of twice per week during the growing season. Desired height of cut will vary, but anywhere between 3/4-inch and two inches should be adequate. By consistently mowing the infield, you remove damaged grass tips, encourage dense turf and reduce thatch buildup. Many groundskeepers like to remove clippings. If you do this, make sure you dispose of the clippings and do not dump them near the field.

The best part about fall infield renovation is that when the season gets underway again in the spring, the field is dense and healthy. A strong turf combined with well-prepared dirt gives teams the incentive to win.

*Editor's Note: Mike Hebrard assists many schools, colleges and parks with baseball field maintenance for Hobbs & Hopkins of Portland, OR. He is the former head groundskeeper and bull pen catcher for the Amarillo Gold Sox, a double-A affiliate of the San Diego Padres.*



## PGA WEST TO HOST DEERE GOLF FINALS

A series of more than 40 regional qualifying tournaments gets underway this month in the second annual John Deere Golf Team Championship. The national tournament teams up the golf course superintendent, golf professional, president and business manager of golf courses across the country for a one-day scramble tournament sponsored by John Deere golf distributors. The winning team from each of 41 sectional tournaments will play in the national finals to be held Nov. 18-20 at PGA West's Jack Nicklaus Resort Course in LaQuinta, CA.

Last year 800 teams participated in 34 sectional tournaments culminating in the national championship at PGA National in West Palm Beach, FL. A team from Ocean Pines Country Club in Ocean City, MD, won the inaugural event.

"The tournament gives the four main managers at golf courses a chance to spend a relaxing day of golf together," states Clair Peterson, tournament director, "something they don't get to do often, even though they work together. It also highlights the importance of the superintendent in club operations." Peterson is senior writer for golf and turf products at Deere headquarters in Moline, IL.

Deere is working with the Professional Golfers' Association (PGA), the Golf Course Superintendents' Association of America (GCSAA) and regional golf and turf organizations to set up the tournaments. "The PGA handles the tee times, rulings and setting up courses for the sectional tournaments," explained Peterson. "The Deere distributor works with GCSAA chapters and local turf organizations to invite teams to enter." Each sectional tournament also features a demonstration and display of the company's turf maintenance equipment. Ten of the 41 finalists that advance to the finals win cash prizes and equipment for their courses.

## CHEVRON, SUMITOMO CREATE JOINT VENTURE

The well-known turf and landscape chemicals Orthene and Diquat from Chevron Corporation will soon be part of the product line of a company called Valent, U.S.A. Corp. This new company is a joint venture between Chevron and Sumitomo Chemical Co., Ltd., of Japan to develop and market agricultural chemical products in the U.S.

Valent, created in April with the signing of an agreement by Chevron President R. W. Davis and Sumitomo President H. Mori, is the culmination of several years of cooperation between the two firms to market Sumitomo products in this country. The joint venture will have exclusive rights to market current and future Chevron agricultural chemical products in the U.S., including a line of products recently acquired from PPG Industries, Inc.

## CHIEFS PROPOSE SYSTEM FOR WORLD CUP SOCCER



The Kansas City Chiefs put on a show for the World Cup Soccer 1994 inspection team in April to prove that the artificial turf in Arrowhead Stadium could be temporarily covered by a natural field. The group from the Federated Internationale de Football Association (FIFA) not only were presented with 12 different options of covering the AstroTurf 8 Drain Thru field at Arrowhead, they were able to walk on a 600 square foot demonstration plot installed at the stadium by groundskeeper George Toma and his crew. Since FIFA will not play World Cup games on artificial surfaces, it was Toma's assignment to prove that covering artificial turf was possible.

Arrowhead is one of 18 U.S. stadiums the inspection team visited in April to determine whether the 52-game international soccer competition in 1994 should be held in this country or in Morocco or Brazil. "Our impression has been most favorable," said Keith Walker, a member of the FIFA Technical Inspection Team from Scotland. "There is definitely a tremendous interest in soccer here." FIFA will announce its decision on July 4 from its headquarters in Zurich, Switzerland.

With the help of Dr. James Watson, vice president of The Toro Company, Toma put together 12 different combinations of thick-cut sod, sand, geotextile, plywood, plastic and drainage. "The real challenge is how much time George has to convert the field," explained Watson. "Four days would be a rush, but three weeks would be a cinch. It's obvious that the management of the Chiefs is behind World Cup Soccer 100 percent!" Arrowhead Stadium would not have to contend with a baseball schedule, since the Royals have their own facility next door. The preliminary matches will be held in July with the final in August.

Toma's first choice for the event starts with a thick geotextile cover (Warren's TerraCover) over the AstroTurf, followed by six mil plastic, 3/4-inch plywood, another layer of plastic, two inches of pea gravel, a sheet of filter fabric and five inches of a sand/soil mix. The system is topped off with two-inch-thick Tifway bermudagrass sod overseeded



Top: Model of natural field for World Cup Soccer 1994. Bottom: Present at demonstration were (top, l. to r.) Lamar Hunt, Chiefs owner; James Trecker, press officer World Cup Soccer; Keith Walker and Guido Tugnoli of the FIFA Inspection team; Jack Steadman, Chiefs president; Richard Berkley, mayor of Kansas City; (top) Doug Schallenberg, Andre Bruce, Chip Toma, George Toma, Scott Martin and Dr. Jim Watson.

with a blend of perennial ryegrass.

The other 11 options eliminate the sand layer to reduce handling and grading and are topped off with two-inch-thick sod containing a mixture of perennial ryegrass and Kentucky bluegrass. Another version utilizes two layers of Enkamat on top of geotextile and plastic. One layer of Enkamat filled with sand is used in a third model over geotextile and plastic. Seven options include sod laid over plastic grids, either on top of plywood or geotextile and plastic. The simplest method utilizes sod laid on two layers of wood snow fence over geotextile and plastic. One layer of snow fence is put down 90 degrees to the first.

"I'll probably retire before the World Cup," said Toma, "so the real job will be up to young guys like my son Chip. They really jumped into this project. They even painted the test plot with soccer field markings and the World Cup Soccer logo." The bermudagrass sod was trucked up from the Royals Spring Training Center at Boardwalk and Baseball in Florida. HOK, a Kansas City based architecture firm specializing in stadium design helped scale down FIFA soccer field dimensions for the model.

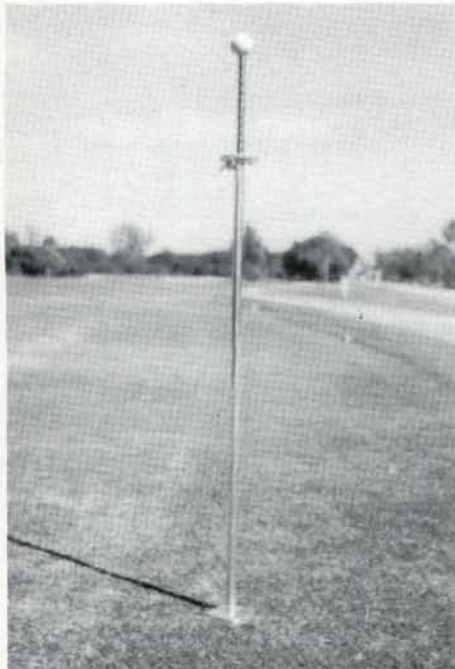
"These (the models) are all experimental," said Chip Toma. "This is like the Mercury Space Program; we're just beginning. We're not even close to the moon yet."



# ROOKIES

## PRODUCT UPDATE

### COMPACTION MONITOR



Soil hardness can be easily measured in the field or on the golf course with the Turf-Tec Penetrometer. The device is a precision instrument that uses gravity to provide soil hardness readings from zero to 100 percent compaction.

The inexpensive device was specially designed for professional use on sports fields, golf courses and other intensively used areas. By using the tool, turf managers can schedule practices such as aerification and irrigation to keep sports turf safe and in play.

The easy-to-use instrument is chrome-plated to resist rust. Turf-Tec says the gravity-operated unit provides more accurate compaction readings than spring-operated units.

#### TURF-TEC INTERNATIONAL

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### LIQUID TURF BOOSTER

Ferta-Plex is an 8-0-0 liquid fertilizer with six-percent iron and four-percent sulfur for improved color and growth of turfgrasses. The liquid formula can be used for both foliar application and as a soil drench. It can also be injected into irrigation systems without harm.

The low biuret urea in Ferta-Plex lowers the risk of fertilizer burn. Humic acid maximizes the amount of usable iron in solution.

Up to eight applications of the fertilizer are recommended per growing season. Rates range from two ounces per 1,000 square feet for foliar application to eight ounces for drenching soil.

The liquid fertilizer helps turf improve or recover quickly without promoting long-term lush growth.

#### NATIONAL RESEARCH & CHEMICAL CO.

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### SOLAR-POWERED SIGNS



Solar SignAge has introduced a line of solar-powered signs, called the Freedom Series, to save the cost of running underground power to architectural signs.

The chief advantage to solar power as an alternative electrical system is cost savings. As a rule of thumb, says the maker, if it costs more than \$1,000 to run power to a sign, or if it is difficult, expensive, or impossible to run power to certain areas, solar should definitely be considered. In addition, federal (and some state and local) tax credits are still available.

The system integrates photovoltaic solar electric panels into the side and top of the sign in an aesthetically pleasing manner, allowing virtually any sign design to be solar powered, yet maintaining a normal appearance.

The solar panels generate 12-volt DC power during the day; it is stored in industrial-grade batteries in the base of the sign. These batteries are completely sealed and should never require water or maintenance. The sign timer senses the low power output of the solar panels as night approaches, and turns the sign on at dusk. The sign can be programmed to run for several hours, then come back on in the morning. It can also be programmed by time of day and day of week.

The maker is currently manufacturing

solar sign systems for architectural signage including post and panel, kiosk, directional project identity, traffic signs, bus shelters, billboards, and temporary signs. Customized signs and other solar-powered products, such as lights and security systems, are also available.

#### SOLAR SIGNAGE

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### BACKPACK POWER BLOWER



It whispers—it doesn't roar. So says John Deere about its latest backpack blower, which it calls "the strong, quiet type." According to the manufacturer, this blower registers a modest 70 dB(A) at 50 feet for "super-quiet" operation, yet provides the power and volume to make quick work of cleanup jobs.

"The 5E is powered by a 43.9-cc engine that's the quietest unit of its size available today," claims Mark E. Bodwell, marketing manager. This power blower "reduces noise levels significantly and meets the strictest noise-abatement requirements," he promises.

The 5E delivers 388 cubic feet per minute of air volume and 180 mph of air speed to whisk away debris.

It also sports locking blower tubes, heavy-duty air cleaner, electronic ignition, and a 50.7-oz. fuel tank. The blower weighs 19.8 lbs.

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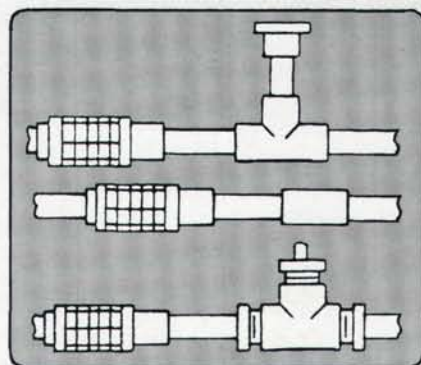
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# ROOKIES

## PRODUCT UPDATE

### BROADLEAF HERBICIDE



Riverdale Chemical Company has just announced EPA registration of its Par 3 Weed Killer. This is another three-way, post-emergent selective broadleaf herbicide containing the amines of MCPA, Mecoprop and Dichloroprop.

It can be applied to golf courses (free-lawns, aprons, tees and roughs), parks, lawns, and ornamental turf.

This product controls dandelions, chickweed, plantain, oxalis, spurge, and many other broadleaf weeds. It may be used on both cool- and some warm-climate grasses.

**RIVERDALE CHEMICAL COMPANY**

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### GREEN LAWN PIGMENT

Results are said to be fast—a beautiful, dark-green lawn in a few hours—when using Greenzit, a permanent green pigment (not a dye) formulated to restore green color to dormant or discolored grass.

It will not wash off, wear off, or fade, and is harmless to grass and animals. Once applied and dried (in a few hours), this

colorant will not rub off onto clothing or shoes. One gallon, when diluted, will cover approximately 2,000 square feet.

Greenzit has been used for years on golf courses, home lawns, municipal and corporate sites, stadium turf, race tracks, resort grounds, and other turf areas.

**W. A. CLEARY CHEMICAL CORPORATION**

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# SCOREBOARD

## CLASSIFIEDS

**CLASSIFIED ADVERTISING RATES: \$40.00 per inch payable in advance. One inch minimum. There are about 50 words per inch. Send copy with check for \$40.00 at least four weeks prior to issue date to: Classifieds, sportsTURF magazine, P.O. Box 8420, Van Nuys, CA 91409. Blind box numbers are available. Special borders and rules will be billed at display advertising rates. Classified ads are not commissionable.**

### GET THE MAXIMUM FOR YOUR WATER DOLLARS.

Larry Keesen, Ltd., offers over 25 years of irrigation design and analysis experience and a national reputation for developing and presenting seminars, training programs and design schools for Toro, Rain Bird and Weather-matic. Keesen is a certified cost estimator and irrigation designer

in commercial and golf course water systems. Currently president of the American Society of Irrigation Consultants, Keesen offers state-of-the-art technology and water conservation as specialties. Specific recent projects include: Highland Ranch Golf Course, Glen Eagles Golf Course in Denver, CO, Greenbelts for the Colorado Highway Department, Stellar Plaza in downtown Denver, Denver University and Clayton Colleges, Colorado State Capitol Complex and the Washington Monument in Washington, DC. Call today for a free brochure. (303) 790-2708.

### FREE JOB PLACEMENT ADS

Sports turf managers looking for jobs can take advantage of free classified ads in **sportsTURF** magazine until 1989. Send your short position wanted ad to SportsTURF magazine, P.O. Box 8420, Van Nuys, CA 91409.

### COATING FOR ELECTRONICS

Liquisil, a liquid silicone rubber electronics coating, insulates, waterproofs, seals, encapsulates, vibration-proofs, and protects electronic products from salt-water corrosion.

Unlike common silicone rubber, which must not be used on copper or electronics because of its corrosive acetic acid cure system, Liquisil is a chemically neutral all-purpose coating.

A clear liquid that flows and penetrates into confined areas, it dries tack-free in one hour and cures in 24 hours. It produces a thick UV-resistant coating that remains flexible in temperatures from freezing through very hot. This protects electronics from hostile environments.

**LIQUISIL CORPORATION**

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