



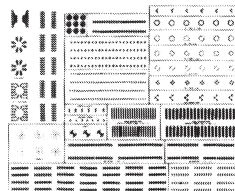
THE CLEAR CHOICE



SMALL PRINTED CIRCUIT REPAIR KIT

For repair and servicing of printed circuits. Kit Contains: (1) Solder Aid Tool, (1) Low-Melt Solder, (1) PC Repair Foil, (1) Fiberglass Eraser.

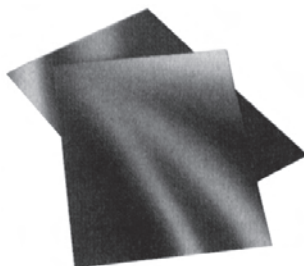
Cat. No.	Net Price
22-0682-0000	\$47.93



PRINTED CIRCUIT DRAFTING PATTERNS

An 8 1/2" x 11" sheet containing two dozen of the most commonly used pre-spaced configurations. Self adhesive pads may easily be removed from master sheet with printed circuit knife and placed upon Mylar positive artwork. Interconnection may be made with GC's line of opaque drafting tapes. A highly refined process and ink assures true opacity and the excellent definition necessary for quality printed circuit work.

Cat. No.	Net Price
21-0677-0000	\$5.24



POSITIVE PRE-SENSITIZED PHENOLIC PC BOARDS

Made of 1.5 mm (1/16") thick phenolic base with one ounce (0.0014") copper. Coated with POSITIVE photo etch resist. Use with GC Developer, Cat. No. 22-0225-0000 or 22-0226-0000 concentrate. Mix at a ratio of 9 parts water to 1 part concentrate. Dielectric constant at 1 MHz = 5.3. Copper 1 side only.

Cat. No.	Size	Net Price
21-0124	2" x 4"	\$3.49
21-0136	3" x 6"	4.31
21-0134	3" x 4"	3.94
21-0146	4" x 6"	5.14
21-0166-0000	6" x 6"	5.05
21-0169-0000	6" x 9"	7.20
21-1710-0000	7" x 10"	9.59
21-1212-0000	12" x 12"	18.04



PERFORATED BARE PHENOLIC PROTOTYPE BOARDS

Unexcelled for prototypes, breadboards, hobby or science projects. Made of tough phenolic with punched holes. Boards are bare phenolic—no copper clad. 0.042" holes; 0.100" spacing. 22-0518-0000: 0.093" holes; 0.265 spacing.

Cat. No.	Description	Net Price
22-0514-0000	2-1/4" wide x 6" long x 1/16" thick	\$5.20
22-0516-0000	4-1/4" wide x 6" long x 1/16" thick	5.97
22-0518-0000	3-3/4" wide x 8" long x 1/16" thick	7.29



PRINTED CIRCUIT BOARDS

Made of glass epoxy base. 1 oz. grade (0.0014") copper.

Cat. No.	Dimensions	Descriptions	Net Price
22-0250-0000	3" x 5" x 1/16"	Copper one side	\$3.05
22-0260-0000	4" x 6" x 1/16"	Copper one side	4.03
22-0261-0000	6" x 6" x 1/16"	Copper one side	5.62
22-0263-0000	6" x 9" x 1/16"	Copper one side	6.41
22-0264-0000	8" x 10" x 1/16"	Copper one side	10.02
22-0267-0000	6" x 9" x 1/16"	Copper both sides	6.89
22-0268-0000	11" x 14" x 1/16"	Copper one side	19.98

POSITIVE PRE-SENSITIZED PC BOARDS

Made of 1/16" thick glass epoxy base with one ounce grade (0.0014") copper. Coated with POSITIVE etch resist photo sensitizer. Use with GC Developer, Cat. No. 22-225 or 22-226.

Cat. No.	Size	Net Price
COPPER ON ONE SIDE ONLY		
21-0330-0000	2" x 4"	\$4.07
21-0332-0000	3" x 4"	4.55
21-0243-0000	3" x 6"	5.04
21-0334-0000	4" x 6"	6.02
21-0336-0000	6" x 6"	6.73
21-0338-0000	6" x 9"	10.11
21-0247-0000	7" x 10"	13.20
21-0252-0000	12" x 12"	24.06
COPPER ON BOTH SIDES		
21-0339-0000	3" x 4"	4.80
21-0350-0000	6" x 6"	9.15
21-0353-0000	6" x 9"	13.01
21-0357-0000	12" x 12"	30.09

NO-CLEAN SUPER WICK

Leaves 15-25% less residue than our regular braid.

Cat. No.	Size No.	Width	Colour Code	Length	Net Price
424-NS	2	.060"	Yellow	1.5M	\$3.15
425-NS	3	.075"	Green	1.5M	3.15
426-NS	4	.100"	Blue	1.5M	3.45
453-NS	3	.075"	Green	1.5M	27.95
454-NS	4	.100"	Blue	1.5M	30.95

Prototyping



PHOTOFABRICATION KIT

Produce printed circuit boards using the positive photofabrication method. Contains: one 3" x 5" M.G. Chemicals' Cat. No. 603 presensitized single sided "PCB", one 4" x 6" M.G. Chemicals' Cat. No. 606 presensitized single sided "PCB", one 6" x 6" M.G. Chemicals' Cat. No. 609 presensitized single sided "PCB", 418-500ml developer, a plastic development tray, 415-500ml ferric chloride, vinyl gloves, two foam brushes, and an instruction sheet. Additional items required: 416-X Exposure Kit, 416-E Etchant Process Kit, 416-T Laser Printer Transparencies, and eye protection.

Cat. No.	Description	Net Price
416-K	Photofabrication Kit	\$47.95



EXPOSURE KIT

Convenient kit includes major components required to "expose" presensitized copper-clad boards. Includes: exposure tube, clear acrylic weight for artwork, fluorescent light fixture with stand (brackets), complete instructions.

Cat. No.	Description	Net Price
416-X	Complete Exposure Kit	\$39.95



PREMIUM ETCHING PROCESS KIT

Etch copper clad circuits professionally. Accommodates two 8" x 12" double sided CCB's. Contains: 7 litre capacity heavy-duty polyethylene etching tank, sturdy mounting bracket, clear acrylic lid, heavy-duty air pump, sparging unit with 3-way adjustable air manifold.

Cat. No.	Description	Net Price
416-E	Premium Etching Process Kit	\$175.00



ECONOMY ETCHING PROCESS KIT

Etch copper clad circuits professionally. Accommodates two 8" x 9" double sided CCB's. Ideal for students and hobbyists. An inexpensive etching solution. Contains: 5 litre heavy-duty polyethylene etching tank, air pump and tubing, sparging unit, bag of vinyl gloves, complete instructions.

Cat. No.	Description	Net Price
416-ES	Economy Etching Process Kit	\$41.95

PROTOTYPING ACCESSORIES

Cat. No.	Description	Net Price
416-B	Replacement bulb for exposure kit (416-X)	\$8.95
416-S	Foam Brush	1.75
416-H	Etchant Heater—200 Watt	29.95
416-D	Etchant Syphon Hose	9.75
416-T	Laser Print Transparency	7.95
416-RP	Etch Resist Pen	5.75
416-G	Latex Disposable Gloves	5.95

Prototyping Chemicals

LIQUID TIN

Tinplates copper circuits in 5 minutes or less at room temperature. No mixing or dilution required. Provides excellent solderability. Protects against corrosion.



Cat. No.	Description	Net Price
421-125ML	125 ml (4.2 oz) liquid	\$9.75
421-500ML	500 ml (17 oz) liquid	31.95



DEVELOPER

For use with M.G. Chemicals' 600 series positive presensitized boards. Concentrated formulation. Dilute one-part developer to ten-parts of tap water. The image appears quickly as the exposed photo resist is dissolved. After developing is complete, rinse with water and the board is ready for etching. Use 416-S foam brush for best results.

Cat. No.	Description	Net Price
418-500ML	500 ml (17 oz) liquid	\$9.75



FERRIC CHLORIDE COPPER ETCHANT

42° baume copper etchant solution. Ready to use. After exposing and developing process, immerse copper board in solution and agitate until etching action is completed. Can be heated to speed up process.

Cat. No.	Description	Net Price
415-500ML	500 ml (17 oz) liquid	\$7.45
415-1L	1 litre (33 oz) liquid	10.45
415-4L	4 litres (1 gallon)	28.95
415-20L	20 litres (5 gallons) liquid	115.00



AMMONIUM PERSULPHATE (COPPER ETCHANT)

Ammonium persulphate crystals are used as an alternative to traditional ferric chloride to produce a cleaner copper etchant solution. 1 kilogram of crystals will produce 1 gallon of etching solution.

Cat. No.	Description	Net Price
410-1KG	1 kilogram (2.2 lb) crystals	\$25.95
410-25KG	25 kilogram (55 lb) crystals	295.00



SODIUM PERSULPHATE (COPPER ETCHANT)

Similar to Ammonium Persulfate. 1 kilogram of crystals will produce 1 gallon of etching solution. Will not dissolve etch resist inks.

Cat. No.	Description	Net Price
4101-1KG	1 kilogram (2.2 lbs) crystals	\$23.95
4101-25KG	25 kilograms (55 lbs) crystals	279.00



COPPER CLAD BOARDS

A 1/16", 1/32", 1/64" laminate with 1 ounce copper. This flame retardant laminate is translucent in colour and made of continuous woven glass cloth impregnated with epoxy resin. Developed specifically for the circuit processing industries' requirements. Provides ultraviolet blocking and fluorescence when using automated optical inspection (AOI). UL # E37002A; 4/5/91. Mil-S-13949H-GFK. UL#E37002A; 4/5/91. Thickness of copper: 1.34 mil (0.0341 mm). FR4 laminate.

Cat. No.	Description	Net Price
SINGLE SIDED, 1/16"		
503	3" x 5"	\$3.45
506	4" x 6"	4.25
509	6" x 6"	5.25
512	6" x 9"	7.45
515	8" x 10"	10.95
521	12" x 12"	14.65
575	24" x 36"	74.95
580	36" x 48"	128.75

SINGLE SIDED, 1/32"		
586	4" x 6"	4.25
588	6" x 9"	7.45
590	12" x 12"	14.65

SINGLE SIDED, 1/64"		
597	6" x 9"	7.45

DOUBLE SIDED, 1/16"		
550	6" x 6"	6.05
555	12" x 12"	16.75
576	24" x 36"	82.00
585	36" x 48"	139.00

DOUBLE SIDED, 1/32"		
587	4" x 6"	4.65
589	6" x 9"	7.75
591	12" x 12"	16.75
596	36" x 48"	139.00

DOUBLE SIDED, 1/64"		
598	6" x 9"	7.75

PRE-SENSITIZED BOARDS (POSITIVE)

Cat. No.	Description	Net Price
SINGLE SIDED, 1/16"		
603	3" x 5"	\$7.95
606	4" x 6"	8.45
609	6" x 6"	9.45
612	6" x 9"	13.95
630	8" x 12"	19.95

SINGLE SIDED, 1/32"		
687	4" x 6"	8.45
689	6" x 9"	13.95

DOUBLE SIDED, 1/16"		
650	6" x 6"	12.95
660	6" x 9"	17.95

DOUBLE SIDED, 1/32"		
690	6" x 9"	17.95

DOUBLE SIDED, 1/64"		
698	6" x 9"	17.95

PAPER PHENOLIC, SINGLE SIDED, 1/32", PRESENSITIZED		
675	12" x 18"	29.95

PAPER PHENOLIC, DOUBLE SIDED, 1/32", PRESENSITIZED		
676	8" x 12"	24.95

Prototyping Repair



NICKEL PRINT

Resistivity: 1 Ohm-mil. Excellent for repairing and modifying printed circuits. Quick drying. Durable acrylic base pigmented with high purity nickel flakes. EMI/RFTI shielding applications.

Cat. No.	Description	Net Price
840-20G	20 grams (0.75 oz) liquid	\$9.75
840-250G	250 grams (8.8 oz) liquid	70.71

SILVER COATED COPPER PRINT-BULK

Resistivity: 0.4 Ohm mil. Excellent for repairing and modifying printed circuits. Quick drying. Durable acrylic base pigmented with high purity flakes. EMI/RFTI shielding applications.

Cat. No.	Description	Net Price
843-250G	250 grams (8.8 oz) liquid	\$150.87
843-900ML	1.65 kilograms (3.6 lbs) liquid	455.38