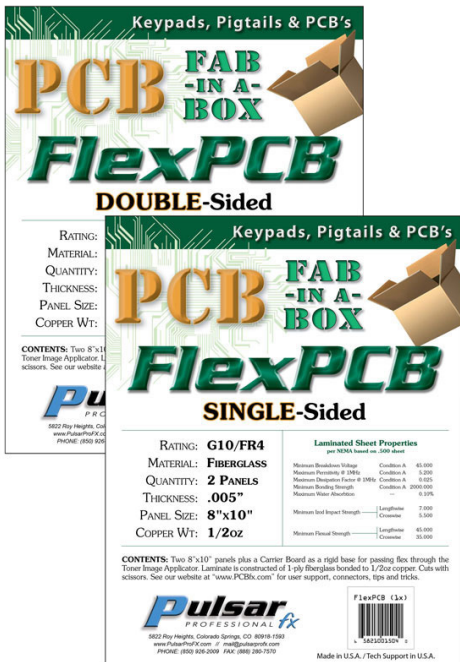


# COPPER CLAD "FLEX"



Super thin, 1-ply FR-4/G10 epoxy fiberglass prepreg is barely thicker than a sheet of paper. Coupled with 1/2 ounce copper foil you get very fast etch times enabling trace widths down to .005".

With the total thickness of .005", cutting and trimming is done using scissors. Made in the USA.

Check out our unique "Contact Etch" technique for no etching tank needed and fast etch times under 2 minutes.



**Underwriters Laboratories:** All materials meet UL-94VO

## General Information:

MIL-P-13949G Type Designation GFU.L. Designation – ANSI Grade FR-4  
 U.L. File Number E38534  
 Flammability Rating 94V-0  
 Maximum Operating Temperature 130°C  
 Copper Weight 1/2 oz.

## Peel Strength:

As received 10 lbs/in, min  
 After Thermal Stress (550°F, 20 sec) 10 lbs/in, min  
 After Processing Solutions 9 lbs/in, min  
 At Elevated Temperature 8 lbs/in, min

## Difunctional FR-4/G-10 Properties:

Flexural Strength Lengthwise 90 KSI, min  
 Permittivity, 1MHZ 4.7 max  
 Loss Tangent, 1MHZ .015, max  
 Water Absorption .15, max  
 ARC Resistance 120 sec, min  
 Volume Resistivity (Cond F)  $1.0 \times 10^8$ , min  
 Surface Resistivity (Cond. F)  $1.0 \times 10^7$ , min  
 Volume Resistivity E-24/125  $5 \times 10^5$ , min  
 Surface Resistivity E-24/125  $1 \times 10^5$ , min  
 Chemical Resistance 1.5%  
 Standard Tolerance +/- .0050  
 Class 3 Tolerance +/- .0035

## ALL "PulsarProFX" PRODUCTS:

### KITS:

- PCB "Fab-In-A-Box" [50-1003](#)
- PCB "Fab-In-A-Box" (MINI kit) [50-1006](#)
- Combo (PCB + DecalPro) [50-1004](#)
- DecalPRO (10min Graphics) [50-1001](#)

### LAMINATOR:

- Applicator (12" 120 vac) [50-1301C](#)

### SUPPLIES:

- PAPER: Toner Transfer Paper [50-1101](#)
- FOIL: GreenTRF (Etching) [50-1225](#)
- FOIL: WhiteTRF (Silkscreen) [50-1226](#)
- FOILS: "DecalPro" [50-1201 ~ 50-1299](#)
- CARRIER BOARD: "DecalPro" [50-1503](#)

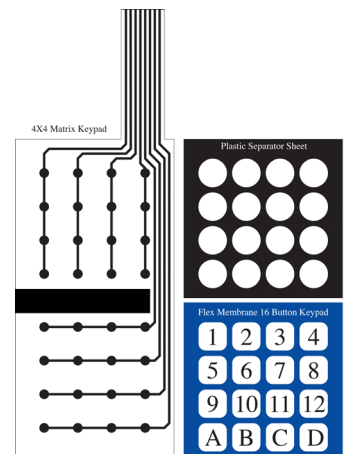
### COPPER CLAD: 8" x 10"

- 2pk Rigid .032" Single Sided [50-1501](#)
- 2pk Rigid .032" Double Sided [50-1502](#)
- 2pk Flex .005" Single Sided [50-1504](#)
- 2pk Flex .005" Double Sided [50-1505](#)

### COPPER CLAD: 6" x 8"

- 4pk Rigid .032" Single Sided [50-1507](#)
- 4pk Rigid .032" Double Sided [50-1508](#)
- 4pk Sampler (Mixed)... [50-1506](#)  
 (.005" SS+DS and .032" SS+DS)

See our [website](#) for more information on how to make flex membrane keypads with links to pigtail connectors and more.



4611 Crow Creek Dr, Colorado Springs, CO 80922-4615

For more information about our techniques we invite you to visit our website at [PulsarProFX.com](#) or call us at (850) 926-2009, 9am-5pm MST