



# ProTech™ G/D

## LOW TEMPERATURE BRAZING SOLDER

- For use on non-ferrous and ferrous metals
- Low bonding temperature
- Cools to match 10 kt. Gold Color
- Consistent high strength
- Non-Toxic, contains no lead or cadmium
- Will bond to precious, semi-precious and many non-precious metals

ProTech™ G/D is a unique 85% silver, low temperature construction and repair material that will give you professional quality results when used according to the following procedures:

Be sure to use a sufficient amount of material to completely refill the joint. Store the syringe in a cool location when not in use. Do not refrigerate. If syringe has not been used for a time, roll for one minute on a vibrating pad to stir contents.

### TORCH APPLICATION

Torch must be capable of producing 1300° to 1400° F.

Make sure that the joint is clean and free of contaminants. We suggest rubber wheeling the joint as a final cleaning step. Apply pressure to plunger until desired amount of material has been deposited in the joint. To stop the material from exiting the syringe, gently pull back on the plunger. Using a "neutral" flame, heat both sides of joint back and forth, as evenly as possible. Do not heat the solder directly! When solder reaches 1350° F, it will flow. Then remove heat. Allow part to cool slowly. Replace cap.

### RESISTANCE MACHINE APPLICATION

Make sure that the joint is clean and free of contaminants. We suggest rubber wheeling the joint as a final cleaning step. Remove the cap from the syringe. Apply pressure to plunger until desired amount of material has been deposited in the joint. To stop the material from exiting the syringe, gently pull back on the plunger. Adjust machine to produce 1350° F to 1400° F. (Second setting on most machines.) Moisten the electrodes with water. Place the carbon tip on the side of the solder. Place metal tip ground wire from the machine too base the metal, approximately 10-mm away from the carbon tip. When the solder flows (at 1350° F), gently run the carbon tip through the solder, using sufficient downward pressure to ensure a completed circuit. Allow the solder to cool slowly. Replace cap onto syringe.

## FURNACE APPLICATION

### WITH PROTECTED ATMOSPHERE

Preheat oven to 1350° F. Make sure that the joint is clean and free of contaminants. Remove the cap from the syringe. Apply pressure to plunger until desired amount of material has been deposited in the joint. To stop the material from exiting the syringe, gently pull back on the plunger. Place appliance into the furnace. When solder flows discontinue heating. Allow appliance to cool slowly (adjust belt speed according to size of appliance). Replace cap on syringe.

### WITHOUT PROTECTED ATMOSPHERE

Preheat appliance in oven to 1400° F. Remove heated appliance from furnace. Make sure that the joint is clean and free of contaminants. Allow appliance to cool to approximately 1250° F. Remove cap from ProTech G/D syringe. Apply pressure to plunger until desired amount of material has been deposited in joint. To stop the material from exiting the syringe, gently pull back on the plunger. Place appliance back into furnace. Slowly increase the furnace temperature to 1350° F. When solder flows, discontinue heating. Allow appliance to cool slowly. Replace cap onto syringe.

## CHARACTERISTICS

### NON-TOXIC

Cadmium-free for safe use intra-orally.

### WIDE PLASTIC MELTING RANGE

Suited for poof-fit-up lap, tee, and butt joints.

### HIGH DEGREE OF WETTABILITY

Compatible with many difficult to join metals, such as precious, and non-precious metals.

### HIGH STRENGTH

Tensile Strength	86,000 psi
Bonding Temperature	1305° F to 1355° F
Color of Deposit	Gold

### NON-TARNISHING

Since ProTech™ G/D contains only precious metals (no zinc, nickel, lead, etc.) binders and flux, there is no tarnishing.

### WILL NOT TURN PORCELAIN GREEN

The greening of porcelain is caused by an excessive use of silver solder to create a strong joint. With a high tensile strength of 86,000 psi, only a small amount of ProTech™ G/D is required to get professional results. The needle nosed syringe allows you strict control over the amount used. Should a particular application require a smaller deposit of material from the syringe, the plastic nose can be removed and replaced with a stainless steel adapter and stainless steel hypodermic needles (14 - 18 gauge), available at nominal cost.