

APPLICATION METHODS FOR ACTIVE METAL INK (TIGER INK)

GENERAL DESCRIPTION

1. Mix well. Then apply a thin coat on to the ceramic piece where you want the alloy to flow. (Too thick of a coat will cause the alloy to have a sluggish flow).
 2. Allow the coating to dry. Oven drying at 250-300 F for 15-20 minutes will give a harder coating if needed. Hot air drying is another method used.
 3. Make sure braze alloy is in contact with the active metal coating.
 4. Assemble fixture with braze alloy and braze as usual. The active metal will raise the melting temperature of the braze alloy used by 150-300 F and is dependent on the amount of active metal used. Adjust your furnace temperature accordingly. **Very** rough looking fillets could be an indication of either too low of a furnace temperature, too much active metal coating, or a combination of both. Some surface roughness is normal.
- Clean up wet or dried ink with mineral spirits.

Calculation of % Active Metal Applied

Active metal slurry code: HF600/69-037/35D1

The % Active metal in the slurry = **35%**

A = Weight of active metal applied = (wet coated part wt. – uncoated part wt.) X 0.35

B = Weight of braze alloy to be used (ring or washer)

C = % active metal = [A/(A+B)] X 100

D = % braze alloy = 100 – C

C + D should = 100%

Example: Wet coated part weight = 6.2 grams

Uncoated part weight = 6.0 grams

A = (6.2 – 6.0) X 0.35 = 0.07 grams of active metal applied.

B = braze alloy washer wt. = 1.33 grams

C = [0.07/(0.07 + 1.33)] X 100 = **5% active metal**

D = 100 – 5 = **95% braze alloy**

(Note: if only 4% active metal was desired, you could back calculate to find the weight of braze alloy needed in formula “C”.)

SAFETY INFORMATION

The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for Active Metal Ink.

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