



# HI-ALLOY ALUMINUM BRONZE

## ONE STEP METAL ALLOY SPRAY POWDER

**DESCRIPTION:** Hi-Alloy One Step Aluminum Bronze spray powder is a self bonding, metal alloy, build-up spray powder designed to be applied at very low temperatures (200° - 250° F) eliminating distortion or metallurgical changes in the base metal. The deposited metal offers high integrity coatings providing low shrinkage, unlimited deposit thickness, good wear resistance, and high bond strength.

**CONVENIENCE:** This powders one-step application process eliminates the need to change powders, gas pressures, and eliminates laminations in the deposit which can result in coating failures.

**VERSATILITY:** One Step Aluminum Bronze powder can be applied to rough ground, grit blasted, or machined, carbon steel, stainless steel, cast iron, free cutting brass and bronze.

**METALLURGICAL BONDING:** One Step Aluminum Bronze powder is designed to react exothermically in the flame producing high strength integrated metallurgical bonds with the parent metal.

**MACHINABILITY:** The deposit macro-hardness is Rockwell B 50. Excellent finishes may be attained using standard carbide cutting tools. Good dry machining results were obtained on both large and small diameter shafts under the following conditions:

**Tool:** Standard Tungsten Carbide cutting tool .75mm (.030") radius positioned perpendicular to the center line of the shaft.

**Work Speed:** 3.1 - 4.1m/sec. (600 - 800 surface feet per minute)

**Traverse Speed:** .04mm/rev. (.0017"/rev.)

**Infeed:** .25mm (.010") roughing, .13mm (.005") finish cut

**APPLICATIONS:** Salvage and repair of worn or mismatched copper alloy parts. Various buildup applications including soft bearing surfaces, and metal to metal wear surfaces such as; shifter forks, brake drums, and piston guides.