

HI-TEMP® 575

NOMINAL COMPOSITION

Copper	57.5% ± 1.0%
Zinc	38.5% ± 2.0%
Manganese	2.0% ± 0.5%
Cobalt	2.0% ± 0.5%
Other Elements (Total)	0.15% Max

PHYSICAL PROPERTIES

Color	Brass Yellow
Melting Point (Solidus)	1635°F (890°C)
Flow Point (Liquidus)	1705°F (930°C)
Brazing Temperature Range	1705°F - 1805°F (930°C - 985°C)
Specific Gravity	8.11
Density (Lbs/in ³)	0.293
Electrical Conductivity (%IACS) ⁽¹⁾	N/A
Electrical Resistivity (Microhm-cm)	N/A

⁽¹⁾ IACS = International Annealed Copper Standard

PRODUCT USES

Hi-Temp 575 is a bronze filler metal used primarily in the brazing of tungsten carbide to steel. Brazing is often combined with heat treatment of the steel tool bits.

BRAZING CHARACTERISTICS

This filler metal exhibits excellent flow and wetting characteristics on tungsten carbide, tool steel and stainless steels. The narrow melting range results in a free-flowing behavior at and above the liquidus temperature. Recommended brazing temperature is 1705°F - 1805°F (930°C - 985°C) with joint clearances of 0.002 in. - 0.005 in. (0.05 mm - 0.12 mm). Use Handy Hi-Temp®, Handy Hi-Temp® DB or Handy Hi-Temp® Boron Modified Flux with this filler metal.

PROPERTIES OF BRAZED JOINTS

The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal. Lap joints, in the listed metals, have been tested at room temperature with the following typical results:

	Tensile Strength (lbs/in ²)
Tungsten Carbide/Tool Steels	26,000 - 29,000

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification.

SPECIFICATIONS

Hi-Temp 575 alloy conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 77-575.

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 Hi-Temp 575.

WARRANTY CLAUSE

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