Handy Flo® 465

**GENERAL DESCRIPTION**

Handy Flo 465 is a clean burning fluxless binder system used in controlled atmosphere furnace brazing of steel and stainless steel assemblies. This system is recommended for use in dry atmospheres such as nitrogen, hydrogen, dissociated ammonia and vacuum with minimum vacuum level of $10^{-4}$ Torr. Handy Flo 465 is recommended for use in dry atmosphere settings i.e. -40°F to -60°F. Handy Flo 465 has been formulated for dispensing applications using automated dispensing equipment and is optimized for 80% metal content for pure copper pastes.

**PRODUCT APPLICATION**

Handy Flo 465 is recommended for use with braze filler metals that flow above 1700°F (927°C) and include: pure copper, nickel base alloys, bronze alloys, copper-nickel alloys and copper/cuprous oxide.

**BRAZING CHARACTERISTICS**

Handy Flo 465 offers excellent vertical slump characteristic ensuring that the paste deposit remains in place and not spatter during the initial stages of the heating process. Handy Flo 465 dries slowly and will not flake off the parts prior to heating operation; this allows pre-pasting of assemblies several hours prior to brazing operation. Handy Flo 465 is exceptionally clean burning and leaves minimal to no residues that are commonly observed with other copper paste systems available elsewhere.

**WARRANTY & STORAGE**

Lucas-Milhaupt, Inc. warrants their Brazing and Soldering Paste products for 90 days from the date of shipment if stored in the original unopened container. Optimal storage conditions would be 65°F (18°C) - 75°F (24°C), clean and dry. It is recommended that the paste products are stored away from direct heat. Paste may require mixing to regain a homogenous mixture before application.

The 90 day warranty should not be interpreted as the shelf or useful life of the product. The paste products may be used well beyond the 90 day warranty, unless customer testing or production results indicate unsatisfactory performance of the product.

**AVAILABLE PACKAGING**

Pastes are available in various size syringes, jars and cartridges. Paste may also be obtained in large containers prepackaged for immediate pneumatic dispensing operations.

**SPECIFICATIONS**

Handy Flo 465 conforms to the following specifications: N/A

**APPLICABLE PRODUCT CODE(S)**

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-465,84-397 (X6629).

**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 Handy Flo 465.
WARRANTY CLAUSE

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