

Technical Data Sheet

Handy Flo[®] 660

GENERAL DESCRIPTION

Handy Flo 660 is a clean burning fluxless binder system used in controlled atmosphere furnace brazing of ferrous, non-ferrous, and non-metallic substrates with conventional and active metal braze alloys. This system is recommended for use in dry atmospheres such as hydrogen and dissociated ammonia with a maximum dew point of -60° F or vacuum with minimum vacuum level of 10^{-4} Torr. Nitrogen and hydrogen bearing atmospheres are not recommended for active metal brazing. Handy Flo 660 has been formulated for dispensing applications using automated dispensing equipment. Handy Flo 660 can be optimized for special applications, including but not limited to screen printing, roller coating and stenciling.

PRODUCT APPLICATION

Handy Flo 660 is recommended for use with high silver VTG braze filler metals (Silvaloy 721, Silvaloy 716), active braze alloys (AgCuTi, AgCuInTi), Copper (and CuSn) and Nickel based (BNi-2, BNi-5, BNi-6) brazing filler metals.

BRAZING CHARACETRISITCS

Handy Flo 660 will slump on vertical surfaces though this can be mitigated by drying to a hard coating at around 250°F (120°C) - 300°F (150°C). Handy Flo 660 will not flake off the parts prior to heating which allows prepasting of assemblies several hours prior to brazing operation. The paste deposit remains in place and does not spatter during the initial stages of the heating process. Due to the unique properties of this binder system, larger parts and deposit may take longer for out gassing. Handy Flo 660 is exceptionally clean burning and leaves minimal to no residues that are commonly observed with paste systems available elsewhere. This product is not for use with fluxes. The paste made with Handy Flo 660 cleans readily with mineral spirit type aliphatic hydrocarbon solvents.

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 $65^{\circ}F(18^{\circ}C) - 75^{\circ}F(24^{\circ}C)$, 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 660 conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-660,84-332 (X6011-11).



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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 660.

WARRANTY CLAUSE

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