

## Handy Flo® 510 DF 510

### ***GENERAL DESCRIPTION***

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Handy Flo 510 is a general purpose fluxing system, which has been specially formulated for dispensing applications using automated dispensing equipment. When used with appropriate braze filler metal, Handy Flo 510 will provide sufficient fluxing action to join most ferrous and non-ferrous metals providing high strength and hermetically sealed joints. This system is recommended for automated brazing operations that require flux deposit to remain in place and not flake off or blow off the assembly during initial stages of heating operation. This product has been used in applications where controlled amount of flux is needed each time the product is applied.

This system is recommended for use in most brazing applications including torch, induction, resistance and air furnace heating methods. Handy Flo 510 is not recommended for use in a vacuum or controlled atmosphere furnace brazing operations. This product exhibits restrictive properties when molten. It does not require drying prior to brazing and it will remain in place and not flake off or blow off assemblies during the brazing process.

### ***PRODUCT APPLICATION***

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Handy Flo 510 is recommended for use with braze filler metals that flow between 1100°F - 1600°F (590°C - 870°C). This product is recommended for use with many of the common Silvaloy® formulations which include silver, copper, zinc and tin or nickel. Handy Flo 510 has been used in various applications including electronic/electrical, aerospace, and jewelry industries.

Handy Flo 510 is recommended for use with silver-brazing alloys including Silvaloy® 560, Silvaloy® 650, Silvaloy® 750 and Silvaloy® 541.

### ***BRAZING CHARACTERISTICS***

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Handy Flo 510 and DF 510 will exhibit restrictive slump characteristics and can be used on vertical joints. These products are corrosive and a post-braze cleaning or rinsing operation is required. The flux residue is easily dissolved in hot water at temperatures of 120°F (49°C) or higher.

### ***WARRANTY & STORAGE***

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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***

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

### ***SPECIFICATIONS***

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Handy Flo 510 conforms to the following specifications: N/A

## ***APPLICABLE PRODUCT CODE(S)***

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-510.

## ***SAFETY INFORMATION***

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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 510/DF 510.

## ***WARRANTY CLAUSE***

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