

Handy Flo[®] 231 DF 231

GENERAL DESCRIPTION

Handy Flo 231 is a high temperature general purpose fluxing system, which has been specially formulated for dispensing applications using automated dispensing equipment. When used with appropriate high temperature silver bearing or copper based braze filler metals, Handy Flo 231 will provide sufficient fluxing action to join most ferrous and non-ferrous metals providing high strength and hermetically sealed joints. This system is generally not recommended for use on stainless steel. 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, and air furnace though quick heating (e.g. resistance) should be avoided as Handy Flo 231 will tend to spatter under quick heat cycles. Handy Flo 231 is not recommended for use in a vacuum 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

Handy Flo 231 is recommended for use with braze filler metals that flow between 1500°F-2000°F (816°C - 1093°C). This product is recommended for use with many of the higher temperature Silvaloy[®] formulations which include silver, copper, zinc and tin or nickel, and Hi-Temp[®] alloy formulations which include copper, zinc, manganese, and nickel. Handy Flo 231 has been used in various applications including automotive, plumbing, and carbide brazing.

BRAZING CHARACTERISTICS

Handy Flo 231/DF 231 will exhibit restrictive slump characteristics during initial heating and can be used on vertical joints. This product is corrosive, and a post-braze cleaning is required to ensure the removal of the corrosive residue.

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

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

Handy Flo 231 DF 231 conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-231.

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 231/DF 231.

WARRANTY CLAUSE

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Lucas-Milhaupt, Inc. specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.