

HANDY FLO 780-DRY (X7427)

NOMINAL COMPOSITION

Alloy	
Aluminum	Remainder
Silicon	12.0% ± 1.0%
Copper	0.30% max
Magnesium	0.10% max
Iron	0.80% max
Zinc	0.20% max
Manganese	0.15% max
Other Elements (Each)	0.05% max
Other Elements (Total)	0.15% max

PRODUCT USES

HANDY FLO 780-DRY (X7427) is a mixture of powdered aluminum-silicon filler metal and non-corrosive flux for use with, induction brazing, and controlled atmosphere brazing. Before use, distilled or D. I. water is added to form a thick slurry or paste which is applied to the joint areas. HANDY FLO 780-DRY (X7427) paste adheres readily to the base metal.

HANDY FLO 780-DRY (X7427) has been used to join 3000 Series Aluminum to 3000 Series Aluminum as well as to Stainless-Steel in Cookware applications. An example of this, is where an Aluminum pot is joined to a Stainless-Steel base with the use of the HANDY FLO 780-DRY (X7427).

PHYSICAL PROPERTIES

Alloy	HANDY FLO 780-DRY (X7427)
Color	Gray
Melting Point (Solidus)	1070°F (577°C)
Flow Point (Liquidus)	1080°F (582°C)
Brazing Range	1080°F - 1120°F (582°C - 604°C)
Particle Size Distribution	-200 mesh

MIXING INSTRUCTIONS

While stirring, add enough Distilled or D.I. water to HANDY FLO 780-DRY (X7427) to form a thick paste or slurry. The consistency of the paste may vary to suit the application. Uniform particle size assures equal dispersion of alloy and flux throughout the mixture. It is suggested that the product be mixed with distilled or D. I. water as needed and be used as soon as possible.

PRODUCT APPLICATION

HANDY FLO 780-DRY (X7427) is normally applied by manual methods using a small brush. This product is typically placed between adjoining materials where a mechanical connection is required.

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. Joint clearances of 0.003 - 0.006 in (0.076 - 0.152 mm) per side are optimum for achieving highest joint strength.

POST CLEANING

HANDY FLO 780-DRY (X7427) contains a non-corrosive flux and requires no post braze cleaning operation.

WARRANTY & STORAGE

Lucas-Milhaupt, Inc. warrants their Dry Fluxes for *twelve months 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 with a relative humidity of 50% or lower. It is not uncommon for the dry flux constituents to aggregate overtime. This has, however, not shown to affect the performance of the dry flux products.

Twelve months should not be interpreted as the shelf or useful life of the product unless actual test results indicate unsatisfactory performance for the intended application.

AVAILABLE PACKAGING

HANDY FLO 780-DRY (X7427) is available in 1 and 5-gallon plastic pail.

SPECIFICATIONS

HANDY FLO 780-DRY (X7427) conforms to the following specifications (metal chemistry only):

- American Welding Society (AWS) A5.8/A5.8M BAISi-4
- Aerospace Materials Specification (AMS) 4185
- Aluminum Association (AA) 4047

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-780

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 780-DRY (X7427)

WARRANTY CLAUSE

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