

EASY-FLO[®] 056 **(BRAZE[™] 056)**

NOMINAL COMPOSITION

Silver	5.0% ± 0.5%
Zinc	16.6% ± 1.0%
Cadmium	78.4% ± 0.5%
Other Elements (Total)	0.15% Max

PHYSICAL PROPERTIES

Color	Gray
Melting Point (Solidus)	480°F (249°C)
Flow Point (Liquidus)	600°F (316°C)
Brazing Temperature Range	600°F - 700°F (316°C - 371°C)
Specific Gravity	8.43
Density (Troy oz/in ³)	4.44
Electrical Conductivity (% IACS) ⁽¹⁾	20.6
Electrical Resistivity (Microhm-cm)	8.40

⁽¹⁾ IACS = International Annealed Copper Standard

PRODUCT USES

Easy-Flo 056 is an intermediate alloy between soft solder and a silver brazing alloy. It can be used in joining of copper and copper alloys, steels and stainless steels. Typical applications include joining of copper leads on small electric motors. Another use has been in joining of gun parts. In this case, the advantages are strength at higher temperature than soft solders can withstand and an increase in the corrosion resistance to alkaline solutions used in blackening gun barrels.

Because of the high cadmium content of Easy-Flo 056, this alloy should not be used in joining of food containers. Special safety precautions must be taken when using Easy-Flo 056 due to its high cadmium content. See US Standard Z49.1, "Safety in Welding and Cutting," published by American Welding Society.

SOLDERING CHARACTERISTICS

The flow point of Easy-Flo 056 is intermediate between soft solders and standard silver brazing filler metals. As a result, a special flux-Handy[®] Flux Type TEC (a liquid flux) - has been developed for use with this filler metal, because the active temperature range of soft solder fluxes is too low while that of the silver brazing fluxes is too high.

FLUX REMOVAL

TEC flux is corrosive and must be removed after soldering. Water rinsing is not adequate for removal of this flux. The following is recommended for the removal of TEC flux:

- a. Hot water rinse
- b. 5% phosphoric-warm bath or 2% hydrochloric-warm bath
- c. Hot water rinse
- d. Neutralize-baking soda or soda ash
- e. Hot water rinse

PROPERTIES OF BRAZED JOINTS

The properties of a soldered joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal.

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification.

SPECIFICATIONS

Easy-Flo 056 alloy conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 32-053.

SAFETY INFORMATION

Easy-Flo 056 contains cadmium. Cadmium fumes are poisonous. This alloy should be used only in well-ventilated spaces with air movement which will carry brazing fumes away from the worker's face. Refer to ANSI Z49.1 entitled "Safety in Welding and Cutting", and the Lucas-Milhaupt Material Safety Data Sheet for detailed information.

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.