



AW for Lead-free and Leaded Alloys

Product Description

Kester AW is a highly active inorganic acid type of flux developed for industrial soldering applications where a flux-cored solder wire is desirable. Rapid soldering can be accomplished on all common metals except aluminum and manganese. AW flux is particularly useful for soldering excessively oxidized metals. Kester AW core flux possesses excellent thermal stability to function under prolonged high temperature conditions as with torch or flame soldering. It is not recommended for electrical or electronic soldering applications due to the corrosive nature of the residue.

Performance Characteristics:

- Solders excessively oxidized materials
- Not for aluminum or manganese
- Excellent thermal stability
- Compatible with leaded and lead free alloys
- Classified as INH1 per J-STD-004

RoHS Compliance

This product meets the requirements of the RoHS (Restriction of Hazardous Substances) Directive, 2002/95/EC Article 4 for the stated banned substances. (Applies only if this core flux is combined with a lead-free alloy)

Suggested Alloys

50/50 - Tin/Lead:

General purpose - for non-electrical applications such as galvanized gutters, sheet metal, radiator repair and stained glass soldering.

95/5 - Tin/Antimony:

For joining copper tubing in air-conditioning and refrigeration equipment. Also for soldering copper pipe and fittings for drinking water systems.

Availability

AW is available in a wide variety of alloys, wire diameters, flux percentages and roll sizes in both leaded and lead free alloys. Please refer to www.kester.com for wire diameters, flux percentages and roll sizes that are available.

The standard wire diameter for most applications is 0.8mm (0.031in). Wire diameters range from 0.8-2.5mm (0.031-0.093in). The amount of flux in the wire dictates the ease of soldering for an application. For most applications 3.3% flux by weight is recommended. Kester Acid Core is packaged on spools of different sizes to accommodate a variety of applications.

For other alloys and flux percentages, please contact Kester Customer Service. Please refer to <https://www.kester.com> for more information.

Process Considerations

Solder iron tip temperatures are most commonly between 371-400°C (700-750°F) for lead-free alloys and 315-343°C (600-650°F) for leaded alloys. Heat both the land area and component lead to be soldered with the iron tip prior to applying the solder wire to land area or component lead. To maximize tip life and reduce solder spattering, do not feed wire directly to iron tip.

Additional liquid flux should only be used as a last resort. Any flux applied to the solder location should be kept to the area of the connection being reworked. If needed, Kester 1630 Inorganic Acid Flux may be used as a compatible liquid flux to aid in enhancing solderability of soldered joints.

Cleaning

AW possesses excellent fluxing ability, however, flux residue after soldering is hygroscopic and corrosive. The work should be allowed to cool undisturbed until the solder solidifies. The flux residue is then removed with a hot water rinse. For more thorough cleaning requirements, rinse with a 2-10% solution of Kester 5760 Neutralizer followed by a thorough hot water rinse. Please contact Kester Technical Support for further information.

Storage and Warranty Period

Storage must be in a dry, non-corrosive environment between 10-40°C (50-104°F). The surface may lose its shine and appear a dull shade of grey. This is a surface phenomenon and is not detrimental to product functionality. Flux-cored solder wire has a limited warranty period determined by the alloy used in the wire. For alloys containing more than 70% lead, the warranty period is 2 years from the date of manufacture. Other alloys have a warranty period of 3 years from the date of manufacture.

Health and Safety

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet and warning label before using this product. Safety Data Sheets are available at <https://www.kester.com/downloads/sds>.