HH 45 SI FC 45% FLUX COATED SILVER BRAZING

JOINING ALLOY FOR USE WITH TORCH

General Characteristics

HH 45 SIL FC is a unique, ultra high purity 45% silver brazing alloy with a super active flux that contains twice the bas metal cleansing action of conventional silver flux coated alloys.The flux coating is designed to be flexible and non-fragile and permits less odor than normal silver alloys. HH 45 SI FC has a flux that is strong enough to clean oxidized stainless steel. This alloy is great for low temperature joining of dissimilar metals, and is excellent where tolerances and fit are not perfect.

Procedure

Clean the weld zone of all contaminants. Preheat the general area to 350^0 F, then heat the joint area using 800^0 F. Melt off some flux and allow it to flow throughout the joint. Then add the silver alloy and using the flame of the torch pull the molten alloy through the joint. Keep adding alloy as required to fill joint. The alloy has very good capillary action and will flow very easily throughout the joint area to form a very strong bond.

Application

HH 45 SIL FC is excellent for use as a joining alloy on applications requiring a free flowing low temperature silver solder. This alloy can be used to join similar and dissimilar metals such as carbon and alloy steel, copper, stainless steel, nickel, brass, bronze, monel, inconel, and for attaching carbide tools. Excellent on light gauge metals.

Tensile Strength	**68,000 PSI**
Yield Strength	**54,000 PSI**
Elongation	**25%**
Hardness	**120 Brinell**
Electrical Conductvity	**13.5**
Melting Point	**1245^{0}F**
Working Temperature	**1175-1235^0 F**

Diameter	**(Inch)**	**1/16**	**3/32**
	(mm)	**1.5**	**2.5**

HH FS 110 LOW TEMPERATURE SILVE SOLDER

SOLDER ALLOY (SOLID, FLUX-CORED OR PASTE)

General Characteristics

HH SF 110 is a high strength, silver bearing solder alloy that is free of cadmium, zinc, lead and other impurities. The deposit stays bright and shiny and has a close color match to stainless steel. This alloy is great for low temperature joining of ferrous and non-ferrous metals, except the white metals, and has excellent corrosion resistance.

Procedure

Clean the weld zone of all contaminants. Apply silver solder flux (for the solid wire solder) to part and hear with soft flame, being careful not to burn the flux. Apply solder and continue to heat until the alloy flows out completely. Remove the flame or heat source and cool slowly, then remove flux residue with warm water. If using the flux-cored or paste form of this product, additional flux may not be necessary as they both contain fluxing ingredients to aid in cleaning the surface to be soldered.

Application

HH SF 110 Silver Bearing Solder is commonly used to join a wide variety of ferrous and non-ferrous metals when higher strengths are required than what can be produced with commonly used solders. It is ideal for use on stainless steel, brass, bonze, copper, nickel, nickel alloys and carbon steels. Typical applications would be dairy and food equipment, hospital equipment, instruments, oxygen lines, sanitary apparatus, electrical connections and general maintenance.

Tensile Strength	**15,000 PSI**
Working Temperature	**130^0 F**
Hardness	**15 Brinell**
Electrical Conductivity	**very good**
Corrosion Resistance	**good**

Diameter	**(Inch)**	**1/16**	**1/8**
	(mm)	**1.5**	**3.2**

Available in Kits containing 9 feet solid wire with flux, or flux-cored, or in 1 lb. spools.

HH 56 SIL FC 56% FLUX COATED SILVER BRAZING

JOINING ALLOY FOR USE WITH TORCH

General Characteristics

HH 56 SIL FC is a unique, ultra high purity 56% silver brazing alloy with a super active flux than contains twice the base metal cleansing action of conventional silver flux coated alloys. The flux coatings is designed to be flexible and non-fragile and permits less odor than normal silver alloys. HH 56 SIL FC has a flux that is strong enough to clean oxidized stainless steel. Because this alloy contains no cadmium, it is widely used on food and beverage handling equipment.

Procedure

Clean the weld zone of all contaminants. Preheat the general area to 350^0 F, then heat the joint area to 800^0 F. Melt off some flux and allow it to flow throughout the joint. Then add the silver alloy and using the flame of the torch pull the molten alloy through the joint. Keep adding alloy as required to fill joint. The alloy has very good capillary action and will flow very easily throughout the joint area to form a very strong bond.

Application

HH 56 SIL FC is excellent for close fitting joints in the food, medical and pharmaceutical industries. This product can be used on steel, copper, stainless steel, and other ferrous metals except for the white metals. It is also excellent for repair of electrode and mechanical equipment, and other delicate parts.

Tensile Strength	**71,000 PSI**
Yield Strength	**60,000 PSI**
Elongation	**25%**
Hardness	**130 Brinell**
Electrical Conductivity	**14.3**
Melting Point	**1210^0 F**
Working Temperature	**1140-1200^0 F**

Diameter	**(Inch)**	**3/64**	**1/16**	**3/32**
	(mm)	**1.2**	**1.5**	**2.5**

HH 1050 FC NICKEL SILVER BRAZING

BUILD-UP ALLOY FOR USE WITH TORCH

General Characteristics

HH 1050 FC is a unique ultra high purity nickel silver alloy with a special flux coating that eliminates harsh chemical odors and the bright glare that conventional type nickel silver normally offers. It has s slick, smooth moisture sealed flux that has triple the life of normal products of the same type. The flux cleaning action is exceptional on dirty steels and cast irons. The difference with the HH 1050 FS us that it has the ability to build-up more than thin flow, so it is excellent for building up and overlaying of parts that need a wear resistant surface.

Procedure

Clean the weld zone of all contaminants. A rough ground surface will produce the best results. Thos flux coated alloy does not ned extra flux and will break down tough oxides that normally form. Always use a neutral flame concentrating on the base metal and not the rod. Keep the torch in cinstant motion to prevent overheating of local areas. When using this product as a build-up alloy, use the largest size, which will help build up quickly. Make sure that the alloy has fused with the base metal and then begin to build up to the desired size and shape. This alloy can be flame shaed to help eliminate machining. Allow part to cool slowly when done, and remove flux with a stainless steel wire brush.

Application

HH 1050 FC is excellent for overlaying and build-up of gear teeth, bearing, shafts, valve seats, wedge bars and steering knuckles. This alloy can be used to build-up carbon steel, alloy steel, cast iron and many nonferrous alloys, such as brass, bronze and copper.

Tensile Strength	**113,088 PSI**
Yield Strength	**95,000 PSI**
Elongation	**28%**
Hardness	**210 Brinell**
Hardness (Work Hardened))	**265 Brinell**
Melting Point	**1583-1640^0 F**
Working Temperature	**1595^0 F**
Remelt Temperature	**1800^0 F**

Diameter	**(Inch)**	**1/8**	**3/16**
	(mm)	**3.25**	**5.0**