

SILVER ALLOY 45

Silver Alloy 45 Technical Data

Uses

Silver Alloy 45 is a general purpose brazing filler metal. The alloy can be used successfully on nearly all nickel, iron and copper-based alloys. In certain instances, special fluxes may be required to obtain good wetting and bonding. In brazing gray cast iron it is necessary to treat the surface prior to brazing to remove graphite, in order to assure good wetting by the brazing filler metal.

Brazing Characteristics

Silver Alloy 45 is a eutectic type, free-flowing filler metal that because of its narrow melting range is less sensitive to the rate of heating and should not liquate (separate into low and high melting constituents). The high fluidity makes well-fitted joints essential and prevents bridging or large fillet formation. Some base metals when brazed under high stress may crack during the brazing process when the stressed base metal is wetted by the brazing filler metal. This is a form of stress corrosion cracking. The sure is to relieve the stress before the brazing alloy is applied. A higher melting brazing filler metal may be preferred since stress relief will then occur before the filler metals.

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.

Specifications

Silver Alloy 45 conforms to: American Welding Society (AWS) A5.8/A5.8M BAg-1, Society of Automotive Engineers (SAE)/AMS 4769

Available Forms

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

**** Contains cadmium – poisonous fumes may be formed when heated.**

Do not breathe fumes. Use only with adequate ventilation such as fume collectors, exhaust ventilators, or air supplied respirators. See American National Standard Z49.1. If chest pain, cough or fever develops after use, call a physician immediately! Keep children away when using!

The Prince & Izant Company recommends using cadmium-free alloys for brazing applications. If you are presently using cadmium bearing alloy and need assistance in identifying a suitable cadmium free substitute, please contact your Prince & Izant Company sales representative.

Compare With

AMS: 4769

AWS: BAg-1

EN: AG 302

Lucas: Easy-Flo 45

PI: Silver Alloy 45

UNS: P07450

Specifications

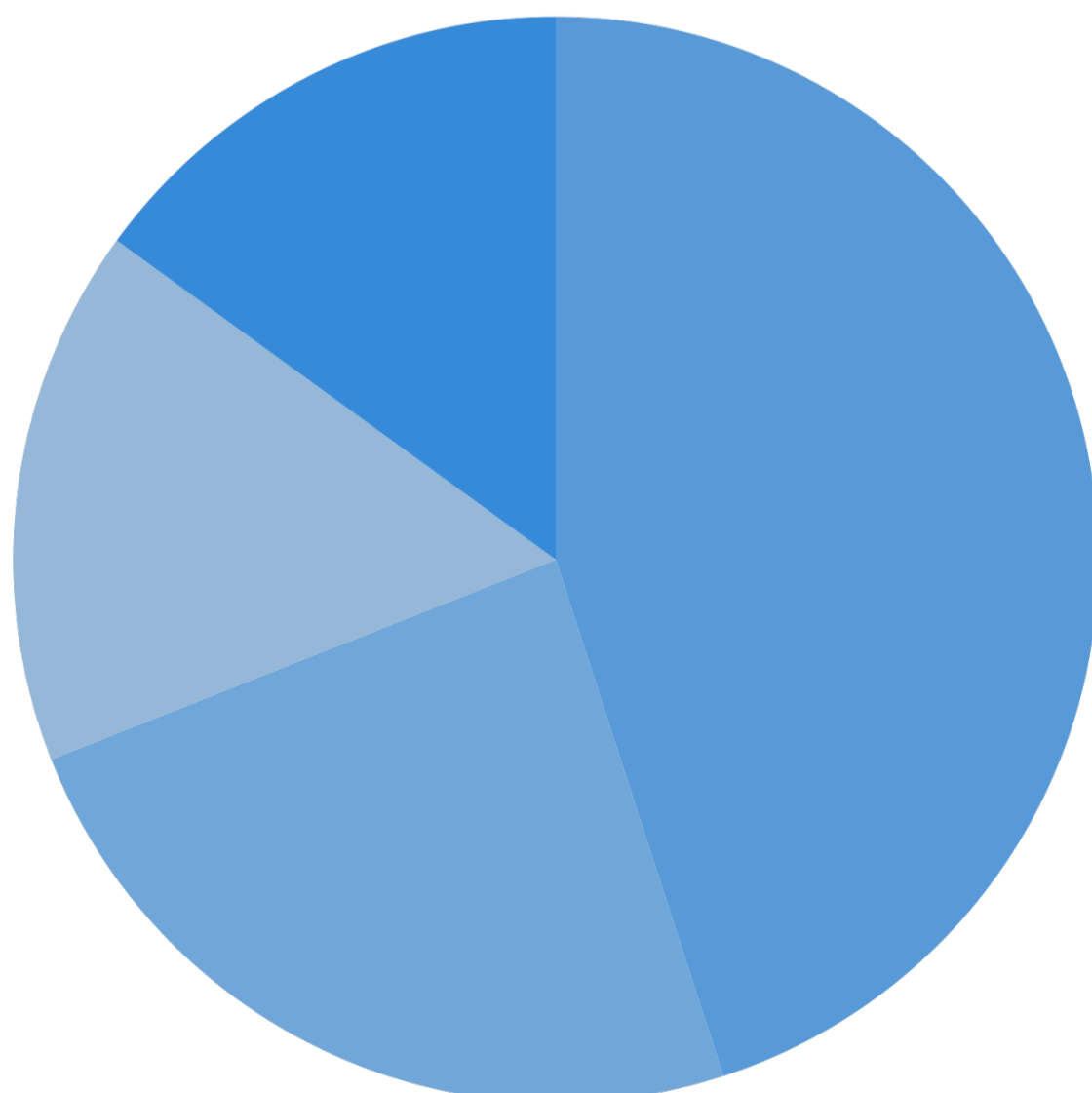
Brazing Temperature Range High: 1245 F / 674 C

Brazing Temperature Range Low: 1195 F / 646 C

Liquidus: 1145 F / 618 C

Solidus: 1125 F / 607 C

Composition



Ag: 45%

Cd: 24%

Zn: 16%

Cu: 15%