



SUPERIOR No. 612



HIGH TEMPERATURE BRAZING PASTE FLUX

- > Specially formulated high temperature brazing flux.
- > For use on ferrous alloys, stainless steels, carbides, and other specialty alloys.
- > Residues are water-soluble.

DESCRIPTION

Superior No. 612 is a high temperature brazing paste flux that is active and protective to 1,205°C/2,200°F. It was specially formulated to meet the process requirements of high-temperature filler alloys, such as Manganese containing alloys, low-fuming Bronze (CDA 681) and nickel-silver (CDA 773).

It is recommended for joining carbide to stainless steel, ferrous alloys, and other alloys requiring high temperature brazing. The flux will not harden or crystallize, retaining its texture for one (1) year.

APPLICATIONS

Superior No. 612 is a boron-modified brazing flux used with high-temperature alloys for manufacturing a wide variety of products including; carbides, stainless steel, large steel parts, or processes requiring a long heating cycle.

PHYSICAL PROPERTIES

Form	Creamy Paste
Color	White
Specific Gravity	1.7
Flash Point	None
Freezing Effects	None
Active Temperature Range	760°C/1,400°F – 1,205°C/2,200°F

APPROPRIATE FILLER METALS

- | | |
|--------|----------|
| > BAg | > BNi |
| > BCuP | > RBCuZn |
| > BAu | |

Superior manufactures quality fluxes. Our business is solving problems.



SPECIFICATIONS

➤ AMS 3417

➤ WS A5.3I-92, Type FB3D

DIRECTIONS

Superior No. 612 may be used in concentrated form or diluted with water to a thinner consistency. Heating the flux to 60°C/140°F – 82°C/180°F makes it less viscous and more reactive. Heat the flux slowly to reduce spattering or excessive bubbling. The raw flux and residues are soluble in hot water (at least 60°C/140°F). Chipping or grinding is not necessary.

- ❶ Remove any oil, grease, or other contaminants from the surface to be brazed.
- ❷ Apply flux to joint by dipping, swabbing or brushing area being brazed. The flux may be used as supplied or diluted.
- ❸ Apply heat, by torch, induction or other means to area being brazed after flux has been applied to activate the flux.
- ❹ Feed the braze alloy into the joint, unless a brazing preform is already in place.
- ❺ Clean flux residues from brazed joint using hot water (60°C±5°C/140°F±10°F) for best results. If unavailable, room temperature water may also be used.

SAFETY PRECAUTIONS

Superior No. 612 contains Potassium Fluoborate (CAS #14075-53-7) and should be handled with care.

Avoid contact with skin, eyes or clothing, using NIOSH approved safety goggles, rubber gloves and rubber apron. As an added precaution, wash hands thoroughly after use. Brazing should be done with adequate ventilation.

Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines.

Superior No. 612 has a two (2) year shelf life when stored properly.

Refer to MSDS for additional safety information.

The information contained herein is based on data considered to be accurate and is intended for use by persons having technical skills at their own discretion and risk. Since conditions of use are outside of Superior Flux & Mfg. Co.'s control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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& Mfg. Co.**

6615 Parkland Blvd. • Cleveland, OH 44139 • Phone: 440-349-3000 • Fax: 440-349-3003
www.superiorflux.com • e-mail: info@superiorflux.com