



SUPERIOR No. 20

ALUMINUM BRAZING FLUX

Powder flux that can be used as supplied or mixed with water to form a paste.
Meets AMS 3412D Specification.
Residues water-soluble.

DESCRIPTION

Superior No. 20 is a powder flux for brazing aluminum and aluminum-based alloys, with an active temperature range of 550-690°C/1,030-1,280°F. It promotes strong braze joints in aluminum alloys, without melting the substrate metals. The flux wets the joining surfaces thoroughly and prevents the entrapment of aluminum oxide inclusions in the joints.

APPLICATIONS

Superior No. 20 is used primarily with gas-oxygen torches, but works in select induction and furnace brazing applications of aluminum metal and most common alloys.

Superior No. 20 is formulated for use with aluminum brazing filler metal alloys 4047/718 (585-592°C/1080-1095°F) and 4145/716 (575-580°C/1060-1070°F).

DIRECTIONS

Superior No. 20 is formulated for use in powder form or mixed with water to make a paste. Best results can be obtained by following these guidelines:

- 1 Base metals should be cleaned thoroughly to remove dirt, grease and other impurities.
- 2 Heat the end of filler metal rod and dip into flux, or sprinkle flux on work-piece.
- 3 At temperature, flux liquefies and flows into joints, removing surface oxide and impurities.
- 4 Continue heating until the filler metal melts and fills the joint, producing shiny fillets.
- 5 Flux residues are completely soluble in hot water.
- 6 Flux is hygroscopic. Store in plastic with desiccant bags away from moisture and heat.

SPECIFICATIONS

Superior No. 20 meets AMS 3412D for aluminum brazing flux.

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PHYSICAL PROPERTIES

Form	Powder (100 Mesh)
Specific Gravity	2.2 (Average) @ 20-25°C/68-77°F
Volatile content	<0.5
Lower Explosion Limit	None
Freezing Effects	None
Humidity Effect	Hygroscopic
Active Temperature Range	550°C/1030°F- 690°C/1280°F

SAFETY PRECAUTIONS

Superior No. 20 contains chemicals that require this flux be used only in well-ventilated areas. Wear NIOSH approved gloves, goggles, and ventilation masks.

Avoid contact with skin, eyes and clothing.

Avoid breathing dust and fumes produced during soldering processes.

In case of eye contact, flush eyes with water and call a physician immediately.

Store flux in cool, un-humid environment in a very tightly sealed container. Desiccant bags are recommended to prevent hygroscopic absorption of humidity into the flux.

Refer to Material Safety Data Sheet (MSDS) for additional 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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