



NIKKIN FLUX CORP. (NFC)
PO Box 402
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N400CUH

Covering / Injectable Drossing Flux

Description

Copper alloys are chemically very active. A tough film or skin of oxide can form quickly on all freshly exposed surfaces, especially in the molten state. Scrap or ingot additions to the melt, stirring and agitation cause copper alloy oxide to be suspended in the melt. If these oxides are included in the cast product, they may lead to defects, so they must be removed from the melt. Most oxides are of copper and zinc, but alloying elements such as magnesium, iron, and titanium also can form their oxides.

Cleaning fluxes are necessary to remove oxides from the melt, while cover fluxes act as a barrier for the surface of the melt against oxide formation. The same flux can generally be used for both purposes.

Alloy Types

N400CUH can be used with a wide range of copper, brass, and bronze alloys.

Application Temperature

N400CUH will work at well in a wide range of temperatures.

Instructions for Use

As a covering flux, N400CUH forms a fluid surface barrier against atmospheric oxidation of the molten bath. As a cleaning or drossing flux, 0.2-0.4% by weight of the alloy is injected with an injection machine, or plunged to the bottom of the bath with a plunger, and mixed in using a circular motion so that all of the molten alloy has a chance to come into contact with the flux. Oxides entrained in the melt adhere to the flux, and float out as dross.

Health and Safety

During fluxing, the operator should avoid inhalation of dust and fumes, and the fluxing operation should be conducted under a hood. Protective gloves are recommended to avoid contact with the skin. In case of contact with the eyes, flush well with water for 20 minutes and consult a physician. After handling wash with soap and water. More extensive information is available in the Material Safety Data Sheet, available upon request.

Packaging

11 lb. bags in drums or in 1 lb. bags



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N600

Injectable Degassing Flux

Description

Aluminum is chemically very active. A tough film of aluminum oxide forms quickly on all freshly exposed surfaces, especially in the molten state. If these oxides are included in the cast product, they may lead to defects, so they must be removed from the melt.

Molten aluminum also dissolves hydrogen gas at twenty times the level of solid aluminum, picking up hydrogen primarily from atmospheric water vapor. When the metal cools and solidifies, excess hydrogen is driven from solution and can form bubbles, of small or large size. This porosity in the solid casting can be a problem both cosmetically and structurally, so hydrogen needs to be removed from the melt before casting.

NFC N600 serves as very strong degassing flux to remove dissolved hydrogen.

Alloy Types

NFC N290H Flux is recommended for all aluminum alloys

Application Temperature

Use NFC N600 in a melt over 1200° F.

Instructions for Use

**MUST NOT BE APPLIED TO SURFACE,
MUST BE PLUNGED OR INJECTED!**

N600 Flux is injected 0.05% by weight of the alloy with an injection machine, or plunged to the bottom of the bath with a plunger, and mixed in using a circular motion so that all of the molten alloy has a chance to come into contact with the flux.

We recommend two treatments of 0.025% one immediately following the other. Oxides entrained in the melt adhere to the flux and float out as dross, and **chlorine gas** released in the breakdown of hexachloroethane combines with dissolved hydrogen gas in the form of HCl (hydrochloric acid). Chlorine gas can also combine with inclusions or other elements of the molten bath such as magnesium.

Health and Safety

During fluxing, the operator should avoid inhalation of dust and fumes, and the fluxing operation should be conducted under a hood. Protective gloves are recommended to avoid contact with the skin. In case of contact with the eyes, flush well with water for 20 minutes and consult a physician. After handling wash with soap and water. More information is available in the Material Safety Data Sheet, available upon request.

Packaging

11 lb. plastic bags in drums.



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N600

Injectable Degassing Flux Special warning for small crucibles!

This is a special warning for crucibles less than 100 pounds of aluminum!

N600 is an extremely strong degassing flux.

Do not add more than 0.025% to a melt at a time. Adding 0.050% to a small crucible of molten aluminum in one charge will cause the aluminum to erupt like a volcano from the violent reaction. Most of your aluminum will be blown out of the crucible and severe burns or death could occur!

For example: Add no more than 1.5 grams to 10 lbs. melt of aluminum at a time. You can do this twice to avoid a massive reaction and get the desired results. Do not guess at the weight, use an accurate scale and plunge the correct amount into your melt to prevent an overly violent reaction!