



SUPERIOR NO. 590



ZINC-BASED BROMIDE RADIATOR ASSEMBLY FLUX

- Zinc-Based, Bromide-Based Flux for Copper-Brass Radiator Assembly
- Excellent All-Purpose Flux for Core Baking, Header Dipping, and Torch Soldering Flux
- All Bromide Formulation Eliminates Green Corrosion After Soldering
- Highly Concentrated Formulation to Permit Great Dilution
- Very Heat Stable Formulation to Tolerate Wide Range of Torch Heating Conditions

DESCRIPTION

Superior No. 590 is a zinc-based, bromide-based, inorganic salt type flux, specifically designed for high temperature copper-brass radiator assembly soldering. The high concentration of the **Superior No. 590** flux allows for a great amount of dilution resulting in huge savings for the production operation. **Superior No. 590** residues do not turn green after soldering but residues can be easily removed immediately after soldering with hot water or specialty cleaning chemistry (available from Superior).

APPLICATIONS

Superior No. 590 was formulated specifically as an all purpose radiator soldering flux that will do core baking, header dipping, and work for a wide range of torch soldering copper-brass radiator assembly operations. The **Superior No. 590** formulation works well with all soft solders used for radiator assembly from very high lead-based solders to lead-free solders. Normal flux application is total immersion of the brass part, flux brush application to the part, or flux spray for core baking.

DIRECTIONS

- ➊ **Superior No. 590** is normally applied at room temperature using flux immersion or spraying.
- ➋ For header dip applications, preheat the **Superior No. 590** flux above the solder pot to remove as much water as possible before immersing in the solder to eliminate solder splattering.
- ➌ The all bromide chemistry of **Superior No. 590** eliminates brass turning green after soldering. To completely remove **Superior No. 590** residue, use **Superior No. 5700SFM** brass cleaner followed by water rinsing and drying.

Superior manufactures quality fluxes. Our business is solving problems.



PHYSICAL PROPERTIES

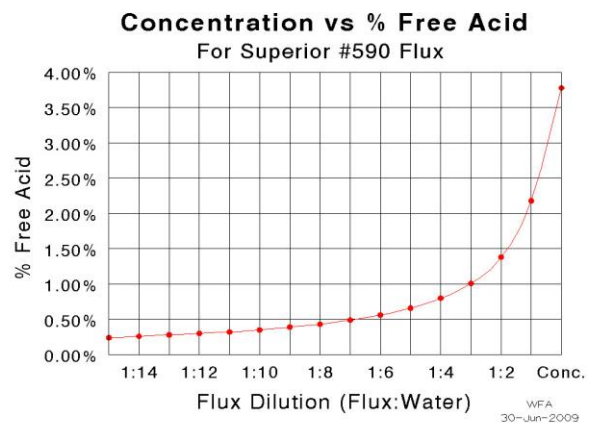
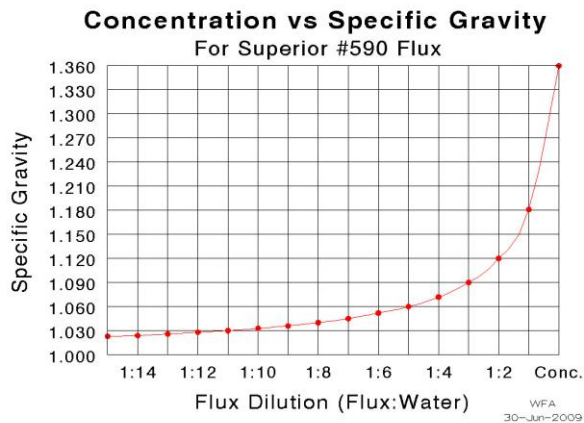
Appearance	Clear, Colorless to Yellow
Specific Gravity	1.360 ± 0.015 @ 20-25°C/68-77°F
Density	11.4 Lbs./Gallon @ 20-25°C/68-77°F
Free Acid	3.8 ± 1.0% HBr
Surface Tension	32 dynes/cm minimum
Recommended Soldering Range	260-427°C/500-800°F
Odor	Mild
Flash Point	None
Freezing Point	None
This Product is RoHS Compliant	

PREPARATION and HANDLING

Superior No. 590 is shipped as a concentrate to be diluted:

- For core baking, dilute 1:10 – 1:15 (flux : water)
- For header dipping, dilute 1:2 – 1:4 (flux : water)
- For tank to core and other brass assembly operations, dilute 1:1 – 1:2 (flux : water)

For greater strength, lower dilution ratios should be used. Mix well when diluting and check specific gravity with a hydrometer before use. The solution will not separate on standing.



SAFETY PRECAUTIONS

Since **Superior No. 590** attacks many metals to some extent, it is recommended that polyethylene, PVC or fiberglass reinforced polyester containers be used. Any machinery or construction materials, which might be exposed to direct contact with the flux, should also be able to withstand acids.

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

Superior No. 590 has a two (2) year shelf life.

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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**Superior Flux
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