



## UNITED ALLOY # SSU

Be insured in quality, Be insured in service, Be insured in “United Alloys.

UNITED ALLOY is uniquely different from other available alloys. Combining the highest purity metals available, stringent quality control, special de-oxidizers and grain refiners, produce trouble-free, superior quality castings and fabrication or rolling (hand-made).

UNITED ALLOY # SSU is a new age-master alloy for adding to fine silver to make Superior Sterling Silver is a proprietary Palladium based with de-oxidizer designed to have excellent tarnish resistance and offers a unique metallic silver color and eliminates fire scale and reduce porosity while still retaining the advantageous characteristics of our other silver alloys. This master alloy can be used for regular casting, stone set in place casting and fabrication or rolling (hand-made), if desire.

We do recommend pre-graining all alloy and fine silver before casting to assure a uniform mixture.

- 1.) Melt Temperature for Alloying : 1,020 - 1,040 °C
- 2.) Melt Temperature for Casting : 1,000 - 1,050 °C

3.) Flask Temperature :

WEIGHT	VACUUM CAST
Light	620 - 680 °C
Medium	550 - 590 °C
Heavy	480 - 540 °C

- 4.) Quench Time : wait 15 - 20 minutes before quenching flask.
- 5.) Pickling : United’s Brite-Cast™ (Ammonium Bi-fluoride), Sparex # 2 (sodium bisulfate), 10% - 20% Sulfuric Acid.  
 Rubber gloves and safety glasses are recommended when using acid pickle.
- 6.) Re-using : We recommend a 50% fresh / 50% Scrap mix, Cleans scrap well before re-melting.
- 7.) Hardening Process : Place in a pre-heated oven set at 300 °C for 2 hour and air cool.
- 8.) Soldering : United Silver Solder Alloy # SSA or already mixed silver solder sheet.  
 Laser welding is recommendation for matching metallic white color.
- 9.) Notes : Melt temperature may vary with type of unit.

Covered under one or more of the following #'s. US. Patent # 4,973,446, # 5,039,479 or International Publication #'s WO 95/14112, & 96/22400

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