

UNITED "WHITE" ALLOY # 994

Thank you for using UNITED'S alloys.

UNITED'S # 994 ALLOY is a **Nickel free white master alloy** designed for **8 K – 14 K white gold casting & rolling**, which produces a **White finished color**. The # 994 alloy can be Rhodium plated for a color closer to Platinum. # 994 alloy is much **easier to cast and set than the Nickel based white alloys**.

You should obtain excellent results by following a few simple instructions. The # 994 has a **low melting point**. **Due to the high silver content, considerable super heat is needed to avoid shrinkage porosity**. The size of flask will determine how much super heat is necessary for correct fill. **Some experimentation with melt temperature may be necessary**.

MELTING

We do recommend pre-alloying all alloy and fine gold with aggressive stirring & fluxing to assure a uniform mixture.

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|-----------------|--|--|
| Step : 1 | Pre- Alloying (Fine gold + alloy) Temperature | 1000° - 1080° C 1840° - 1980° F |
| Step : 2 | Casting Temperature for 8 K – 14 K Alloyed Grain | 980° - 1060° C 1800° - 1940° F |

NOTES: Melt temperature may vary with type of unit. This alloy is designed for casting and all wrought operations.

FLASK TEMPERATURE

Normal recommended temperature in the range of **580° C to 700° C / 1076° F – 1292° F** depending on size of flask, karat & type of jewelry.

FLUXING

Boric Acid is the recommended flux. Do not use carbon fluxes or any fluxes designed for refining; i.e. soda ash, saltpeter, etc. Avoid flux in bottom pour automatic casting units.

QUENCH TIME

8 - 10 minutes

INVESTMENT REMOVAL

Most standard investment removers will successfully remove the investment powder. Fluoric-based investment removers are the best for removing the silicon oxide invisible coating. Use of aggressive acids causes stress corrosion and surface damage and is therefore not recommended.

UNITED'S Brite-Cast™ Investment Remover works effectively in removing fire scale as well as preventing stress corrosion or surface damage of the cast piece.

REMELTING

We recommend a 50% fresh - 50% scrap mix.

TECHNICAL ASSISTANCE

Always available... Call 1-800-999-3463 / 1-800-999-FINE
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