

## UNITED “ULTRA WHITE” ALLOY # 974

Thank you for using UNITED’S alloys.

UNITED’S # 974 ALLOY may be used for **9 K to 18 K white gold casting, or hand-made (rolling)**, which produces a **Ultra White finished color**. # 974 is a high fluidity alloy that contains a silicon & boron as deoxidizers.

You should obtain excellent results by following a few simple instructions.

### MELTING

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

<b>Step : 1</b>	Pre- Alloying (Fine gold + alloy) Temperature	<b>1055° - 1065° C</b> <b>1931° - 1949° F</b>
<b>Step : 2</b>	Casting Temperature for 9 K – 10 K Alloyed Grain	<b>1040° - 1050° C</b> <b>1904° - 1922° F</b>
	Casting Temperature for 14 K – 18 K Alloyed Grain	<b>1005° - 1025° C</b> <b>1841° - 1877° F</b>

**NOTE: Melt temperature may vary with type of unit. This alloy is designed for casting and hand-made (rolling).**

### 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

Fluxing white gold is extremely important to pick-up oxides. 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

**15 – 25 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 70% fresh - 30% scrap mix. White gold alloy has about 1/3 the reusability of yellow gold alloys.

### TECHNICAL ASSISTANCE

Always available... Call 1-800-999-3463 / 1-800-999-FINE  
 E-mail / [doc@unitedpmr.com](mailto:doc@unitedpmr.com) Web-Site / [www.unitedpmr.com](http://www.unitedpmr.com)

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