



UNITED ALLOY # 580

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 # 580 is a nickel free white master alloy. This alloy is designed for adding pure palladium 8% -15% to fine gold and alloy for casting and fabrication. The whiteness color produced will be a moderate white color to a super white color depend on the palladium content, which should be Rhodium plated for optimum color. This alloy can be used in regular investment casting and rolling (hand-made), if desire.

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

METAL	RATIO
Fine Gold	75%
Pure Palladium	8% - 15%
United # 580	10% - 17%

1.) Melt Temperature for Alloying : 1,300 - 1,350 °C

2.) Melt Temperature for Casting : 1,150 - 1,250 °C

3.) Flask Temperature :

KARAT	WEIGHT	CENTRIFUGAL CAST	VACUUM CAST
18K	Light	650 - 700 °C	680 - 720 °C
	Medium	620 - 650 °C	650 - 680 °C
	Heavy	600 - 620 °C	620 - 650 °C

4.) Quench Time : After casting, wait 15 - 20 minutes before quenching flask.

5.) Pickling : United's Brite-CastTM (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 : New alloy and fine gold 70% and Old gold 30%, Cleans Old gold well before re-melting.

7.) Specific Gravity : 18K : 15.90 - 16.00

8.) Soldering : United Palladium White Gold Solder # 18KWHPD

9.) Notes : Melt temperature may vary with type of unit.

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