



### UNITED ALLOY # 391

Thank you for using UNITED'S alloys.

UNITED'S 391 ALLOY is designed for 18K – 22K yellow gold casting, which produces a deep yellow color, popular in the middle-east.

#### **MELTING**

Melt Temperature for 18K Alloyed Grain	1000° - 1010° C. 1832° - 1850° F.
Melt Temperature for 20K-22K Alloyed Grain	1100° - 1130° C. 2012° - 2066° F.
Melt Temperature for Alloying 18K	1070° - 1080° C. 1958° - 1976° F.
Melt Temperature for Alloying 20K-22K	1080° - 1100° C. 1976° - 2012° F.

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

#### **FLASK TEMPERATURE**

For 18K- use normal recommended temperature.	
For 20K-22K Vacuum casting	676° - 730° C. 1250° - 1350° F.
For 20K-22K Centrifugal casting	537° - 565° C. 1000° - 1050° F.

#### **FLUXING**

Boric Acid is the recommended flux. Use as little flux as possible. 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**

15-20 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. Our Brite-Cast Investment Remover also works very well.

#### **REMELTING**

We recommend 50% rejuvenation for remelting.

#### **NOTES**

Melt temperature may vary with type of unit. This alloy is designed for casting only.

#### **TECHNICAL ASSISTANCE**

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