

## Technical sheet - Alloy 381

**Color** - Reddish Yellow

**Purpose** - All Purpose

**Karat** - 18K - 22K

### Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	72.0%	18K 381	85.68	7.760	19.58	18K 381	15.13	18K 381	188
Ag	24.0%					22K 381	17.68	22K 381	109
Zn	4.0%								
Ni	0.0%								

### Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	18K	1070° - 1080° C	1960° - 1975° F	
	22K	1100° - 1130° C	2010° - 2065° F	
Casting	18K	950° - 970° C	1742° - 1778° F	
	22K	1045° - 1065° C	1942° - 1948° F	
Flask	18K - 22K	510° - 675° C	950° - 1248° F	
Quench Time	15 - 20 mins		Remelting	50% Fresh Mix

### General Instructions

- Very little boric acid flux is recommended. Do not use carbon flux such as soda ash, saltpeter etc. No flux needed in bottom pour automatic casting unit.
- Flouric based investment removers are the best for silicon oxide invisible coating. Use of aggressive acid causes corrosion and surface damage. United's brite cast investment removers works effectively.
- To calculate the weight of the metal needed (in grams), multiply density (gm/cc) with weight of wax (grams). Add 10% of the total weight for button.
- Gypsum bonded investment is recommended. Follow manufacturer's instruction for burnout cycle.

**Note:** There are proprietary metals in the formulation which are not included in the composition section.

**Technical Assistance:** Always available... Call 1-800-999-3463 / 1-800-999-FINE

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