

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	84.80%	10K BR1	85.96	5.83	12.25	10K BR1	11.40	10K BR1	168
Ag	3.20%	14K BR1	85.1	5.35	12.29	14K BR1	12.91	14K BR1	146
Zn	1.00%	18K BR1	84.06	6.63	15.14	18K BR1	14.88	18K BR1	197
Ni	11.00%								

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	9K - 18K	1050° - 1060° C	1922° - 1940° F	
Casting	10K	1025° - 1045° C	1877° - 1913° F	
	14K	1030° - 1050° C	1886° - 1922° F	
	18K	990° - 1010° C	1814° - 1850° F	
Flask	9K - 18K	510° - 650° C	950° - 1202° F	
Quench Time	15 Mins (9-14K), 3 mins button first (18K)		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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