

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	87.50%	10K 544	87.65	8.23	16.11	10K 544	11.56	10K 544	124
Ag	9.00%	14K 544	86.66	8.85	16.28	14K 544	13.06	14K 544	134
Zn	3.50%	18K 544	85.95	9.4	18.07	18K 544	14.98	18K 544	179
Ni	0.00%								

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	9K - 18K	1040° - 1050° C	1904° - 1922° F	
Casting	10K	1020° - 1040° C	1868° - 1904° F	
	14K	990° - 1010° C	1814° - 1850° F	
	18K	960° - 980° C	1760° - 1796° 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

E-mail / techteam@unitedpmr.com Web-Site / www.unitedpmr.com