

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	5.00%	10K PD1	87.75	-0.03	11.76	10K PD1	12.7	10K PD1	162
Ag	65.00%					14K PD1	14.08	14K PD1	194
Zn	9.00%	14K PD1	85.49	0.73	14.89				
Pd	21.00%								

Melting & Casting Instructions

Temperatures			
	Karat	°C	°F
Pre alloying	10K - 14K	1130° - 1140° C	2066° - 2084° F
Casting	10K	1085° C - 1105° C	1985° - 2020° F
	14K	1040° C - 1060° C	1904° - 1940° F
Flask	10K - 14K	540° - 675° C	1004° - 1247° F

Quench Time	15-20 Minutes	Remelting	50% Fresh Mix
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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.
- Platinum investment and Platinum casting machine is recommended. Follow manufacturer's instruction for burnout cycle. Melting under Argon gas is highly recommended.

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