

Technical sheet - Alloy 400

Color - Greenish Yellow

Purpose - Casting

Karat - 9K - 14K

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	61.0%	10K 400	91.03	0.299	19.27	10K 400	11.25	10K 400	142
Ag	19.0%					14K 400	12.87	14K 400	147
Zn	20.0%								
Ni	0.0%								

Melting & Casting Instructions

Temperatures			
	Karat	°C	°F
Pre alloying	9K - 14K	1030° - 1065° C	1886° - 1949° F
Casting	10K	910° - 930° C	1670° - 1705° F
	14K	900° - 920° C	1652° - 1688° F
Flask	9K - 14K	510° - 650° C	950° - 1202° F
Quench Time	15-20 Minutes	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