

Technical sheet - Alloy 320

Color - Standard yellow

Purpose - Casting

Karat - 9K - 14K

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	59.0%	10K 320	88.26	4.22	18.72	10K 320	11.87	10K 320	148
Ag	36.0%					14K 320	13.13	14K 320	183
Zn	5.0%								
Ni	0.0%								

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	9K - 14K	1010° - 1040° C	1850° - 1910° F	
Casting	10K	905° - 925° C	1661° - 1697° F	
	14K	910° - 930° C	1670° - 1706° F	
Flask	9K - 14K	510° - 650° C	950° - 1202° F	
Quench Time	15-30 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