

Technical sheet - Alloy 290

Color - Rich Reddish Yellow

Purpose - Casting

Karat - 9K - 14K

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	58.75%	10K 290	90.31	2.3	17.49	10K 290	11.61	10K 290	144
Ag	30.75%					14K 290	13.1	14K 290	158
Zn	10.50%								
Ni	0.00%								

Melting & Casting Instructions

Temperatures			
	Karat	°C	°F
Pre alloying	9K - 14K	1010° - 1040° C	1850° - 1910° F
Casting	10K	890° - 910° C	1634° - 1670° F
	14K	885 - 905° C	1624° - 1660° F
Flask	9K - 14K	510° - 650° C	950° - 1202° F
Quench Time	15-20 Minutes	Remelting	35%-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