

Technical sheet - 821

Color - Light Yellow (9K -14K), Standard Yellow (18K - 22K)

Purpose - All Purpose

Karat - 9K - 23K

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	83.50%	10K 821	87.92	6.3	18.48	10K 821	11.34	10K 821	109
Ag	4.50%	14K 821	87.13	6.8	18.11	14K 821	12.86	14K 821	119
Zn	12.00%	18K 821	87.41	7.35	18.96	18K 821	14.84	18K 821	168
Ni	0.00%	22K 821	87.36	8.54	24.96	22K 821	17.55	22K 821	104

Melting & Casting Instructions

Temperatures			
	Karat	°C	°F
Pre alloying	9K - 22K	1050° - 1100° C	1922° - 2012° F
Casting	10K	1005° - 1025° C	1841° - 1877° F
	14K	975° - 995° C	1786° - 1822° F
	18K	960° - 980° C	1760° - 1795° F
	22K	1010° - 1030° C	1850° - 1885° F
Flask	9K - 23K	510° - 650° C	950° - 1202° F
Quench Time	20-25 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