

Technical sheet - Alloy 278

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*	10K 278	11.31	10K 278	156
Cu	65.0%								
Ag	18.0%								
Zn	17.0%	10K 278	88.98	4.09	18.56				
Ni	0.0%	14K 278	88.38	4.14	19.33	14K 278	12.83	14K 278	174

Melting & Casting Instructions

Temperatures			
	Karat	°C	°F
Pre alloying	9K - 14K	1010° - 1040° C	1850° - 1910° F
Casting	10K	930° - 950° C	1706° - 1742° F
	14K	920° - 940° C	1688° - 1724° F
Flask	9K - 14K	510° - 650° C	950° - 1202° F
Quench Time	20-25 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

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