

Technical sheet - Alloy 983

Color - Ultra White Purpose - Casting Karat - 18K

Physical & Mechanical Properties

Composition		Color Coordinates			
Cu	59.50%	Karat	L*	a*	b*
Ag	10.00%				
Zn	8.00%	18K 983	85.69	1.55	13.43
Ni	22.50%				

Density (g/cc)			
18K 983	14.78		

As cast Hardness (HV)		
18K 983	199	

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	18K	1030° C - 1050° C	1886° F - 1922° F	
Casting	18K	980° C - 1000° C	1796° F - 1832° F	
Flask	18K	540° C - 675° C	1004° F - 1247° F	

Quench Time	20-30 Minutes	Remelting	70% Fresh Mix

General Instructions

- Very little <u>boric acid</u> flux is recommended. Do not use carbon flux such as soda ash, saltpeter etc. No flux needed in bottom pour automatic casting unit.
- <u>Flouric based</u> investment removers are the best for silicon oxide invisible coating. Use of aggressive acid causes corrosion and surface damage. <u>United's brite cast</u> investment removers works effectively.
- To calculate the weight of the metal needed (in grams), <u>multiply density (gm/cc) with weight of wax (grams)</u>. Add 10% of the total weight for button.
- Gypsum bonded investment is recommended. Follow manufacurer'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