

## **Technical sheet - Alloy VHF 4**

Color - Greenish Yellow Purpose - Casting Karat - 9K - 14K

## **Physical & Mechanical Properties**

Composition		
Cu	61.50%	
Ag	19.75%	
Zn	18.75%	
Ni	0.00%	

Color Coordinates					
Karat	L*	a*	b*		
10K VHF4	90.18	0.56	20.6		
14K VHF4	89.57	1.8	20.7		

Density (g/cc)		
10K VHF4	11.3	
14K VHF4	12.82	

As cast Hardness (HV	)
10K VHF4	133
14K VHF4	145

## **Melting & Casting Instructions**

Temperatures								
	Karat		°C	°F				
Pre alloying	9K - 14K	1000° - 1030° C		1832° - 1885° F				
Castina	10K	9	15° - 935° C	1678° - 1715° F				
Casting	14K	9	00° - 920° C	1652° - 1688° F				
Flask	9K - 14K	5	10° - 650° C	950° - 1202° F				
Quench Time	20 - 25 Minutes	7 1	Remelting	50% 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 aggresive 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</u> (grams). 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