

Technical sheet - Alloy 231

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

Physical & Mechanical Properties

Composition		
Cu	73.7%	
Ag	14.8%	
Zn	11.5%	
Ni	0.0%	

Color Coordinates				
Karat	L*	a*	b*	
10K 231	88.43	3.99	19.13	
14K 231	87.2	4.17	18.45	

Density (g/cc)	
10K 231	11.42
14K 231	12.91

As cast Hardness (HV)	
10K 231	133
14K 231	149

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	9K - 14K	1010° - 1040° C	1850° - 1910° F	
Casting	10K	960° - 980° C	1760° - 1796° F	
	14K	945° - 965° C	1733° - 1769° F	
Flask	9K - 14K	510° - 650° C	950° - 1202° F	
Quench Time	20-25 Minutes	Remelting	35%-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