

Technical sheet - Alloy 554

Color - Bright Russian Red

Purpose - All Purpose

Karat - 9K - 18K

Physical & Mechanical Properties

Composition		Color Coordinates				Density (g/cc)		As cast Hardness (HV)	
		Karat	L*	a*	b*				
Cu	82.50%	10K 554	87.79	7.93	16.47	10K 554	11.60	10K 554	136
Ag	14.50%	14K 554	87.98	7.95	16.68	14K 554	13.10	14K 554	153
Zn	3.00%	18K 554	85.7	8.83	18.32	18K 554	15.07	18K 554	194
Ni	0.00%								

Melting & Casting Instructions

Temperatures				
	Karat	°C	°F	
Pre alloying	9K - 18K	1050° - 1060° C	1922° - 1940° F	
Casting	10K	990° - 1015° C	1814° - 1850° F	
	14K	975° - 995° C	1786° - 1822° F	
	18K	965° - 985° C	1768° - 1805° F	
Flask	9K - 18K	510° - 650° C	950° - 1202° F	
Quench Time	15 Mins (9-14K), 3 mins button first (18K)		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

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