ABI Precious Metals

TECH SPECS: 92.5% Sterling Silver / 3% Palladium

FINENESS: 92.5% Silver, 3% Palladium

DENSITY: 10.6 g/ccm vs. 10.4 g/ccm for regular sterling

INVESTMENT: Regular sterling investment acceptable - premium investment preferred

MELT RANGE: 954ºC – 963ºC (1750ºF -1765ºF)

Please protect metal with inert gas during the melting process

CASTING RANGE: 1000ºC – 1020ºC (1832ºF-1868ºF) **PASTY RANGE:** 907ºC – 960ºC (1665ºF – 1760ºF)

FLASK RANGE: Depends on part (s) weight or type. In general, we believe this alloy should be **cast at flask temperatures of 100ºF to 150ºF higher** than you currently use for traditional sterling castings. It is important to hold flask at intended temperature or at least 1 hour prior to casting. We suggest test casting with 1 flask at the same temperature as you normally do for traditional sterling, a 2nd flask 100ºF (38ºC) higher and a 3rd 200ºF (93ºC) higher to establish the optimum temperatures for your oven and specific parts.

QUENCH: 15 to 20 minutes (quicker = softer castings, longer = harder)

HEAT TREAT: Place pieces on trees in 750ºC (1382ºF) oven for 45 to 60 minutes. Turn off the oven and let it cool to room temperature (about one hour more).

PICKLE: Pickling with SPAREX (Granular Sodium Bisulfate) is recommended. After pickling the sprues and trees to be re-cast should be tumbled & thoroughly rinsed and cleaned prior to casting.

METAL MIX: At least 60% new to 40% old. It is important to thoroughly clean the old (used) metal prior to re-using. It is imperative to "regrain" the buttons & sprues if you plan to re-use them to eliminate the sulfur dioxide from previous melts.

FLUX: Not necessary with this metal. If desired, use 25% granular Boric Acid and 75% granular borax mixed on the button.

MACHINE NOTES: If casting with a frequency machine, always cast "on the upswing" of the metal heat cycle. Always retrieve flask well before casting temperature is reached, then cast when temperature reaches set point.

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