

**TECH SPECS : 92.5 Silver / 1.0 % Palladium sterling( Patent Pending )**

For casting machines:

- FINENESS** : 92.5 % Silver, 1.0% Palladium.
- DENSITY** : 10.4 g/ccm –same as regular sterling.
- INVESTMENT** : We recommend a premium investment be used (high crystobolite) for smoother castings
- MELT RANGE** : 893-910\*C (1640-1670\*F)  
Please protect metal with inert gas during the melting process
- PASTY RANCE** : 882-902\*C (1620-1656\*F)
- CASTING RANGE:** 968-982\*C (1775-1800\*F)
- HARDNESS** : 71-73 R-T
- FLASK RANGE** : Depends on part (s) weight or type. In general, We believe this alloy should be cast at flask temperatures of 100 to 200F higher than you currently use for traditional sterling castings. It is important to hold flask @ intended temperature or “at least 1 hour” prior to casting. We suggest test casting with 1 flask @ same temperature as you normally do for Traditional Sterling, a 2<sup>nd</sup> flask 100 f (38\*C) higher and a 3<sup>rd</sup> @200 F(93\*C) 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 705\*C (1300F) oven for 60 minutes. Take out of oven and air cool completely. This will significantly harden the pieces.
- PICKLE** : Pickling with SPAREX (Granular Sodium Bisulfate) is recommended. After pickling, the Sprues and trees (to be re-cast), should be tumbled & thoroughly rinsed & cleaned prior to casting.
- METAL MIX** : At least 50% new to 50 % old. It is important to “thoroughly clean” the old (used) metal prior to re-using. It is imperative to “re grain” the buttons& sprues if you plan to reuse 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 heating cycle. Always retrieve flask well before casting temperature is reached, then cast it when temperature reaches set point.