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## Sterling Silver Anti-Firescale Casting Grain #22

[Please Note: This casting grain is covered under one or more of the following #'s: U.S. Patent #4,973,446, #5,039,479 or International Publication #'s: WO 95/14112, & WO 96/22400]

Sterling Silver "22" is a proprietary deoxidized sterling silver designed to maintain maximum hardness while reducing fire scale and porosity. Sterling "22" maximizes hardness, color and reusability. By applying the know-how that has granted it two U.S. Patents, the manufacturer has developed a sterling silver with 90% of standard hardness, while retaining many of the characteristics of our other sterling silver grains.

Melting: Traditional methods of melting regular sterling silver I.E. (as cool as possible) will cause a variety of problems. Most failures with these sterling products are caused by using too low a melt temperature. Customers familiar with silicon deoxidized gold casting alloys should have less trouble adjusting to the appearance of these silvers.

| MELTING                        | Temperature range: 990°–1020°C<br>1815°–1870°F  |
|--------------------------------|---|
| REMELTING                      | We recommend a 50% fresh mix. Our sterling silver replenisher can also be used without adding fresh.  |
| FLUXING                        | It may be necessary to flux these silver melts. We recommend borax, boric acid or a 50/50 mixture. <b>Do not</b> use carbon-containing fluxes or charcoal. Skim any surface oxides off the surface before stirring.   |
| QUENCH TIME                    | 15–20 minutes.  |
| HARDNESS<br>AND HEAT TREATMENT | This silver as cast will have 90% of the hardness of traditional sterling silver. It can be hardened further by heat treatment at 300°C/575°F for 1 hour, and air cool.   |
| INVESTMENT REMOVAL             | Most standard investment removers will successfully remove the investment powder. Fluoric-based investment removers are the best for removing the silicon oxide invisible coating. Use of aggressive acids causes stress corrosion and surface damage and is therefore not recommended. |
| FLASK TEMPERATURE              | Use your regular flask temperatures.  |
| FIRESCALE                      | Firescale is completely eliminated.   |
| CYANIDE TREATMENT              | Not recommended.  |
|                                |   |

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