

INSTRUCTIONS FOR MASTER ALLOY #S-88

S-88 is a **New Age -master alloy** for adding to fine silver to make Sterling Silver. Based on our proprietary Sterling Silver, this master alloy was developed for those who wish to alloy their own sterling. **# S-88** will cast without fire scale. The advantages over standard sterling are: **Reduced gas porosity.** **# S-88** contains deoxidizers which resist oxygen absorption. **Reduced shrinkage porosity.** Better solidification characteristics reduce shrinkage porosity.

MIXING	Use 92.5% fine silver & 7.5% S-88 . (We recommend using 92.7% fine silver & 7.3% S-88). Example: 500 gms, add 462.5 gms of fine silver & 37.5 gms of S-88 .
MELTING	We do recommend pre-alloying all master alloy with fine silver followed by aggressive stirring & fluxing to assure a uniform mixture before using it for casting.
Step : 1	Pre- Alloying (Fine silver + master alloy) Temperature 1035° - 1045° C 1895° - 1913° F
Step : 2	Casting Temperature for ingots or bars 1020° - 1040° C 1868° - 1904° F
	Temperature for continuous casting 980° to 1020° C 1796° to 1868° F
	Temperature for static casting in bars 1020° to 1040° C 1868° to 1904° F
	Ingot molds should be well heated to 121° C / 250° F before pouring metal.
REMELTING:	We recommend a 50% Fresh / 50% Scrap mix. Clean scrap well before re-melting.
FLUXING:	We recommend a Boric Acid flux, skim off any surface oxides before pouring. Carbon or charcoal fluxes are not recommended.
QUENCHING:	Cast ingots may be quenched immediately.
PICKLING:	Hot Sparex solution (sodium bisulfate) or 10% Sulfuric Acid can be used as a pickle.
FABRICATION:	Use the same fabrication procedures as those used on regular Sterling Silver.
ANNEALING:	Coat the jewelry items with boric acid or any oxidation preventing solutions available. A 20 minute anneal at 700° C / 1292° F followed by water quenching.
HARDENING:	Place in a pre-heated oven set at 300° C / 575° F for 1 hour and air cool.
TECHNICAL ASSISTANCE	Always available... Call 1-800-999-3463 / 1-800-999-FINE E-mail / doc@unitedpmr.com Web-Site / www.unitedpmr.com

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