



ARGENTIUM®

THE FINEST SILVER

QUICK START GUIDE FOR STUDIO JEWELLERS

A concise, essential guide to working with Argentium Silver.

ANNEALING / HEATING

Argentium Silver displays a paler colour at red-hot temperatures, compared with standard sterling silver.

Argentium Silver only needs to display a light red/pink heat to be fully annealed. It is advisable to carry out torch annealing and soldering in a shaded area to clearly observe the colour of the Argentium Silver and to prevent overheating.

Argentium Silver cools more slowly than standard sterling silver.

Always wait until the red glow has disappeared from your Argentium Silver before touching, moving or quenching in water.

PICKLING

Standard jewellery pickle solutions can be used with Argentium Silver - dilute and heat the pickle as advised by the supplier. A non-toxic Argentium pickle is available from the Argentium Silver Guild and other Argentium suppliers.

It is advised to avoid using strong acids with Argentium Silver.

Do not use a pickle solution that is over-used and heavily contaminated with copper.

HEAT HARDENING

Argentium Silver can be formed into complex shapes in its fully soft condition and then have its hardness and durability increased by means of a simple heat treatment.

It is important to heat harden Argentium Silver before starting the final finishing/polishing procedures. A hardened surface is quicker to polish and assists tarnish resistance.

HEAT HARDENING METHOD 1

After annealing or soldering Argentium Silver, allow the piece to air-cool to room temperature.

To harden - heat in a furnace or oven at 300°C/572°F for 60 minutes and allow to air-cool to room temperature.

NB. Lower oven temperatures (down to 220°C/428°F), can be used for heat hardening Argentium Silver, in combination with longer heating times.

HEAT HARDENING METHOD 2

To achieve a greater hardness than method 1, firstly anneal the Argentium Silver, then wait until the red glow has disappeared before quenching in water.

To harden - heat in a furnace or oven at 300°C/572°F for 60 minutes, then air-cool to room temperature.

CASTING

The Argentium 940 Silver Casting alloy has been specifically developed for all casting applications. Instructions can be found at: www.argentiumsilver.com/user-guides-downloads



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JOINING

Argentium Silver can be soldered, fused and welded.

Fusing enables strong, clean joints with the additional benefits of not having to remove excess solder or having visible solder seams on finished articles.

Our range of Argentium Silver solders (wire and paste) are tarnish resistant and colour matched to Argentium Silver. Argentium welding wire is available for laser or pulsed arc welding.

Argentium Flux is recommended for fusing (this flux remains active at high fusing temperatures). Argentium Flux and other standard jewellery fluxes can be used for soldering.

POLISHING

The use of separate polishing wheels and polishing media is very important for Argentium Silver.

This prevents the cross-contamination of another metal/alloy onto the surface of Argentium pieces.

DEGREASING & RINSING

A clean, fully degreased surface is required to achieve the best, initial tarnish resistance.

Argentium Silver should be cleaned in an ultrasonic bath at 50°C/122°F, using a neutral (pH 7-9) aqueous soap solution. After degreasing, pieces should be rinsed with water at room temperature and dried thoroughly.

Important:

Do not to use deionised/reverse osmosis water for rinsing as this can damage the protective germanium oxide and can cause the surface to discolour.

With all cleaning tanks it is important that the cleaning solution is not allowed to develop a surface layer of oil or grease, as cleaned pieces will be coated with unwanted deposits when they are withdrawn from the cleaning tank. If this occurs, the surface layer of oil or grease will discolour in air, giving the false impression of a tarnishing reaction.

LONG-TERM CARE

Argentium is low maintenance silver. Simply wipe away any dust or finger marks with a soft cloth or, for more intricate pieces, wash in warm soapy water, rinse and dry immediately. An occasional wipe with a clean silver polishing cloth will help to maintain Argentium Silver's lustrous shine (Argentium Silver Care Cloths are available).

Further information can be found at: [argentiumguild.com](https://www.argentiumguild.com) and [argentiumsilver.com](https://www.argentiumsilver.com)

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