Pod Jewellery

Top 10 Soldering Tips

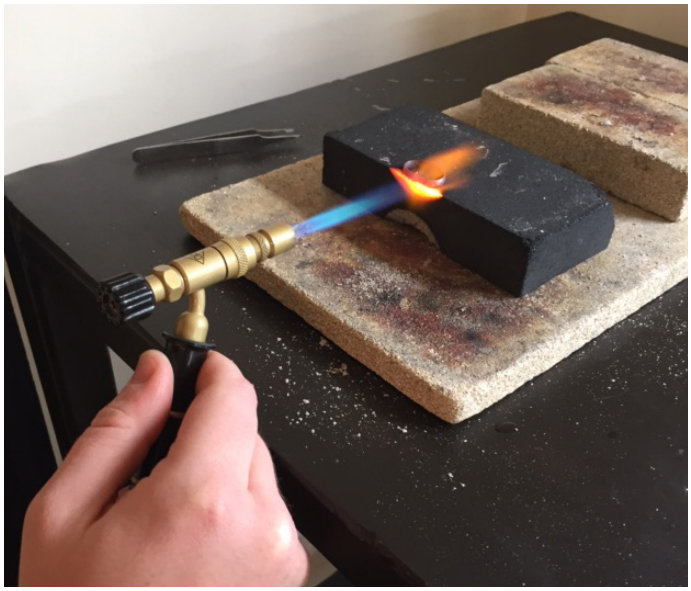
Here are some simple tips for soldering silver, copper and gold that will help you perfect your soldering technique, no matter which torch you use.

1. Make sure your join fits tightly before soldering

Solder will not fill gaps, so you need to make sure the join is smooth and close fitting. Once your join is aligned, hold your piece up to the light. If you can't see any light, it's a good close join and ready to be soldered.

2. Always label your solder

Make sure you label your solder, so you don't accidently use silver, rather than solder.
Silver solder is an alloy (mixture) of silver with softer alloys including zinc that allow it to flow. The more zinc, the lower the melting temperature.
Ensure you label your pieces of solder, as hard, medium and easy, as soon as you get them home. Place a labelled piece of masking tape around one end if you are using wire and colour your sheet using a sharpie. Use red for hard, orange for medium and green for easy. This will make sure your never get your solders mixed up.



3. Make sure the join is clean

Always clean your piece before you solder.
Also make sure your solder is clean.
If you've previously soldered or annealed the piece, make sure it's been in pickle. Grease, dirt and fingerprints can stop solder from flowing. The best way to clean pieces is to use a brush with dishwashing liquid and wash with water.
Dry thoroughly with a clean cloth.

4. Coat the area you want to solder in flux

Without flux, your solder wont flow properly, so always paint flux all over your join.
Silver and copper are excellent conductors of heat, so to prevent firescale, you can paint your entire piece with flux.

5. Hold the torch in your non-dominant hand

If you're right-handed, you should be holding your torch in your left hand and using your right hand for the more delicate work, like placing and moving solder. The opposite applies if you're left-handed.

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6. Make sure the sharp blue point of your flame, is touching your piece

This is the hottest part of the flame. If your torch is too close or too far away, the piece won't get hot enough for the solder to flow.

7. Conduct your heat and flame around the whole piece

When you're working with sterling silver or copper, keep an eye on the colour changes of your piece as it heats up. First it will turn an orange/brown colour, then dark charcoal/black and finally a salmon pink glow will appear. When you see this colour, the solder should automatically flow.
Solder follows the heat, so make sure you move the fame evenly across your piece, this will encourage the solder to flow through the join rather than off to one side.
Your flux paste will turn clear and glassy at about 650°C just before the temperature Easy solder melts. So watch for this change.

8. Remove your torch as soon as the solder flows

Once you see your solder turn to a shiny liquid and start to flow, remove the torch. This will prevent overheating the metal.

9. Always quench your piece in water before putting it into the pickle

Pickle is acidic, so the last thing you want to do is put a piece of hot metal into the pickle solution and splash this acid on yourself. Ensuring your piece is cold before it goes into the pickle, also means the pickle is less likely to be absorbed into your solder join and discolour it.

10. Try not to overheat your piece

Firescale is caused by overheating your piece.
It creates a grey/mauve coloured stain on sterling silver. You can avoid firescale by following these top 10 tips. Small firescale blemishes can be removed by filing and sanding it from your piece.