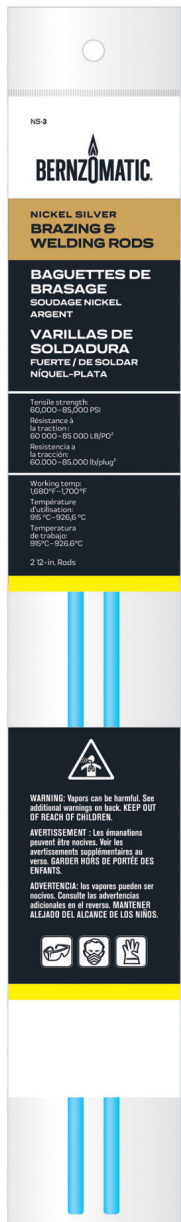




# PRODUCT USE GUIDE



## NS3 NICKEL SILVER BRAZING AND WELDING RODS

This product is flux-coated and does not require pre-fluxing.

For best results, we recommend using Bernzomatic® MAP-Pro® fuel and the Bernzomatic TS8000 Torch or an oxy acetylene torch.

Using the appropriate brazing rod for the intended material is important. Refer to our [Recommended Rods by Metal Type](#) guide for more information.

Before you start your project, clean away any oxidation or residue where you'll be joining the work pieces using sandpaper. This will help the flux work properly and allow the melting rod to flow adequately into the joint for a stronger bond.

Begin by preheating the two mating metals separately before joining using a stable, heat-resistant work surface. To do this, slowly move the tip of the “inner flame” (the hottest point of the flame) at a 45-degree angle over the area to be joined. It's important to make slow, even movements to ensure uniform temperature is maintained and no one particular area is overheated. The hot metal from the workpiece will first melt the flux coating from the brazing rod, then the metal will be exposed to begin flowing into the joint.

Always try to maintain consistent heat throughout your working area. If you need to adjust the work piece to the sides or backside, be sure to reheat the area before reapplying.

Continue aiming the flame on the work piece near the rod; not directly on the rod. This allows the metal to melt the rod and pool the braze to form the joint. The heat source near the pool of braze will help pull it toward the source and down into the joint.

**Troubleshooting Tip:** If the metal is too cool and the flux melts but the metal does not begin to flow, remove the rod from the work piece and re-heat the work pieces to the indicated working temperature then reapply.

## ADDITIONAL RESOURCES

**Soldering:** Joining metal with filler material at less than 840°F to form a joint. Watch our video on [how to Solder a Pipe](#).

**Brazing:** Joining metal with filler material at greater than 840°F to form a joint. View our [How to Braze Metal with a Torch](#) project page.

**Welding:** Joining metal at high enough temperature to completely melt the metal and melding together.