



# Nickel 10 Additive for SN100CL

## DESCRIPTION

Nickel 10 Additive is intended as an additive to increase the nickel content of SN100CL lead-free solder. The normal replenishment alloy for SN100CL is SN100CLe. SN100CLe should be used for regular additions to maintain the level of the solder pot.

## CONTROL PROCEDURES

Nickel 10 Additive contains a nominal nickel concentration of 10% by weight. The nominal nickel content in SN100CL solder is 0.05%. The amount of Nickel 10 Additive required can be calculated as shown below.

Nickel 10 Additive should be added to the SN100CL solder pot slowly, and with good mixing. Allow at least 1 hour of recirculation at operating temperature for the nickel to be evenly distributed before use.

**Weight of Nickel 10 Additive required (lbs) =**

$$(0.05\% - \text{Current Ni content}) \times (\text{Total SN100CL weight in lbs}) \times 0.10$$

### Addition Procedure

1. Adjust the solder temperature to 260 – 280 C (500 – 540 F).
2. Make sure the solder pump is turned on.
3. Add the Nickel 10 Additive, one piece at a time. Allow time for it to dissolve in the solder pot before adding the next piece.
4. When finished adding, allow additional time for all of the Additive to dissolve.
5. Change the solder temperature back to normal operating parameters.
6. Dross the solder to remove any oxides that form at the surface.

## ANALYSIS

Nickel analysis in SN100CL lead-free solder can be done using a variety of methods. Florida Cirtech provides analysis services to our customers. Refer to the Solder Analysis Form on the Florida CirTech website for details.

## SAFETY AND STORAGE

**CAUTION WHEN ADDING THE Ni 10 TO THE SOLDER POT IT HAS BEEN KNOWN FROM TIME TO TIME CAUSE THE MOLTEN SOLDER TO SPATTER!! PLEASE WEAR PROPER SAFETY EQUIPMENT GLASSES AND GLOVES.**

Please refer to the MSDS sheet for additional details.

