

# Soldering Surface Mount Components



## For Special Applications that Require SnPb Solder

SnPb solder has been removed from most Coilcraft commercial products in order to be as eco-friendly as possible. Nevertheless, SnPb terminations are required for a limited number of special applications. The following information is intended to provide guidance for those special applications.

All of our RoHS-compliant parts are intended to be backward compatible with tin-lead soldering processes.

For all soldering methods, the optimal reflow profile for a circuit board assembly is dependent on several factors other than just the Coilcraft component and the chosen solder paste, such as the size and layout of all components. Large parts may require higher temperatures or a longer preheat time, whereas smaller parts (0201, 0402) may require extra considerations to avoid damage to the components.

Following are general guidelines (See Table 1.) that should only be considered a starting point for devel-

opment of a proper reflow profile that considers, at a minimum, part size, the specific customer-chosen solder alloy, and the PCB component population. No single reflow profile covers all possible circuit board designs.

Table 1. General Guidelines for Special Applications

	SnPb	Units
Preheat / Soak Temperature	100 – 150	°C
Preheat / Soak Duration	60 – 120	seconds
Ramp-up Rate	3	°C/second
Typ. Reflow Temperature	183	°C
Peak Temperature	235	°C
Time Within 5 °C of Peak	20	seconds
Time Above Reflow Temperature	60 – 150	seconds
Ramp-down Rate	6	°C/second

