Heating lead battery terminal for removal from plastic cover for recycling

Objective
Heat a lead battery terminal to 400 °F (204 °C) to release it from plastic cover for recycling

Material
Battery terminals 0.84” OD (21.3mm) x 0.45” ID (11.4mm) x 1.3” (33mm) long

Temperature
400 °F (204 °C)

Frequency
318 kHz

Equipment
- Ambrell 2.0 kW induction heating system, equipped with a remote workhead containing two 0.33 µF capacitors for a total of 0.66 µF
- An induction heating coil designed and developed specifically for this application.

Process
A single turn helical coil is used for this heating application. The lead terminal is placed inside the coil and is heated for 20 seconds. The terminal become hot enough to separate from the plastic. The terminal and plastic are separated and the lead is cleanly removed.

Results/Benefits
Induction heating provides:
- Controllable and repeatable heat
- Efficient and faster production
- Hands-free heating that involves no operator skill for manufacturing
- Even distribution of heating
Terminal in place for heating

Terminal after it has been heated and removed