Tempering an audio speaker screen

Objective
To heat an audio speaker screen to 1100 °F (593 °C) for tempering

Material
- Speaker screen

Temperature
1100 °F (593 °C)

Frequency
263 kHz

Equipment
- Ambrell EASYHEAT 2 kW, 150-400 kHz induction heating power supply with a remote workhead containing two 0.33 μF capacitors for a total of 0.66 μF.
- A single-position four-turn helical induction heating coil designed and developed for this application

Process
The speaker screen was placed over the induction coil and the power was turned on. The screen heated to the desired temperature within just one second.

Results/Benefits
- Direct, precise heating: Only heats the target portion
- Repeatability: The client was using a torch; induction offers repeatability superior to that of torch heating
- Fast heating: Significantly faster than other techniques such as torch and oven heating
- Clean and flameless, which makes it safer and more repeatable
The coil under the screen during heating.