Heat Speaker Cone to Cure Epoxy

Objective  Heat the top surface of a speaker basket to cure epoxy between the basket and a paper insert.

Material  Steel Speaker Cone Measuring 6.5" (165.1mm) by 9.125" (231.8mm)

Temperature  375 °F (190.6 °C) to 425 °F (218.3 °C)

Frequency  138 kHz

Equipment  • Ambrell 5kW induction heating system equipped with a remote workhead
            • An induction heating coil designed and developed specifically for this application

Process  A two turn helical coil with concentrator plate is used to heat top area of the speaker basket where the epoxy is located. The epoxy cures in 3.5 seconds at a temperature of 400ºF (204.4ºC).

Results/Benefits  Induction heating provides:
                  • Minimized coating defects
                  • Repeatable results
                  • Faster production times