

ABSTRACT

An antenna core produced by shaping a soft magnetic metal powder with the use of a resin as a binder, wherein the soft magnetic metal powder is an amorphous soft magnetic metal powder or a nanocrystal-containing amorphous soft magnetic metal powder, of the general formula (1): $(\text{Fe}_{1-x-y}\text{Co}_x\text{Ni}_y)_{100-a-b-c}\text{Si}_a\text{B}_b\text{M}_c$ (1), and wherein the resin as a binder is a thermosetting resin. In the formula, M is at least one element selected from the group consisting of Nb, Mo, Zr, W, Ta, Hf, Ti, V, Cr, Mn, Y, Pd, Ru, Ga, Ge, C, P, Al, Cu, Au, Ag, Sn and Sb. Each of x and y is an atomic ratio and each of a, b and c an atomic %, satisfying the relationships: $0 \leq x \leq 1.0$, $0 \leq y \leq 0.5$, $0 \leq x+y \leq 1.0$, $0 \leq a \leq 24$, $1 \leq b \leq 30$, $0 \leq c \leq 30$ and $2 \leq a+b \leq 30$.