

ABSTRACT

Co-Fe ALLOY FOR SOFT MAGNETIC FILMS, SOFT
MAGNETIC FILM, AND PERPENDICULAR
MAGNETIC RECORDING MEDIUM

Disclosed is a Co-Fe alloy for soft magnetic films used in perpendicular magnetic recording media, etc., which maintains high soft magnetic properties and has excellent weather resistance. Disclosed is a Co-Fe alloy for soft magnetic films, which is a Co-Fe alloy the composition formula of which is expressed at atomic ratio as $((\text{Co}_{100-X}\text{-Fe}_X)_{100-Y}\text{-Ni}_Y)_{100-(a+b+c)}\text{-M1}_a\text{-M2}_b\text{-Ti}_c$, where $5 \leq X \leq 80$, $0 \leq Y \leq 25$, $2 \leq a \leq 6$, $2 \leq b \leq 10$, and $0.5 \leq c \leq 10$, the remainder of which is composed of unavoidable impurities, and wherein the element M1 in the aforementioned composition formula is one or two or more elements selected from (Zr, Hf, Y), and the element M2 in the aforementioned composition formula is one or two or more elements selected from (Ta, Nb).