

Abstract

Soft magnetic iron-cobalt-based alloy and process for manufacturing it

A soft magnetic alloy consists essentially of 10 percent by weight $\leq$ Co $\leq$ 22 percent by weight, 0 percent by weight $\leq$ V $\leq$ 4 percent by weight, 1.5 percent by weight $\leq$ Cr $\leq$ 5 percent by weight, 0 percent by weight $<$ Mn $<$ 1 percent by weight, 0 percent by weight $\leq$ Mo $\leq$ 1 percent by weight, 0.5 percent by weight $\leq$ Si $\leq$ 1.5 percent by weight, 0.1 percent by weight $\leq$ Al $\leq$ 1.0 percent by weight and the remainder iron, the content of the elements chromium and manganese and molybdenum and aluminium and silicon and vanadium being 4.0 percent by weight $\leq$ (Cr+Mn+Mo+Al+Si+V) $\leq$ 9.0 percent by weight.