

HIGH-AL NON-ORIENTED SILICON STEEL WOUND IRON CORE AND PREPARATION METHOD THEREFOR

ABSTRACT

Disclosed in the present disclosure are a high-Al non-oriented silicon steel wound iron core and a preparation method therefor. In the preparation method, normalization before cold rolling is omitted, and secondary annealing is added after winding formation. 1.0-2.0% of high-Al composition is used as a chemical component, where $Al/Si=1.0-1.4$, $C+S+O+N \leq 0.007\%$, and $Sn=0.01 \times Si+0.04 \times Al$ or $Sb=0.01 \times Si+0.04 \times Al$; the heating temperature of hot rolling $T_1=1160-20 \times [Si]-10 \times [Al]$, the finish rolling temperature $T_2=880-20 \times [Si]-15 \times [Al]$, and the coiling temperature $T_3=600+5 \times [Si]-30 \times [Al]$; and during acid pickling, a mixed solution of NH_4HF_2+HCl is used as an acid pickling solution in both a first and a second stage, and a mixed solution of H_2O_2+HCl is used as an acid pickling solution in a third stage.