

**HIGH-GRADE NON-ORIENTED SILICON STEEL HAVING
EXCELLENT SURFACE AND PREPARATION METHOD THEREFOR**

5 ABSTRACT

Disclosed in the present invention are non-oriented silicon steel and a preparation method therefor. The steel comprises the following chemical components in percentage by mass: C $\leq$ 0.0025%, Si: 1.80-2.40%, Al: 0.40-0.60%, Mn: 1.5-2.0%, P $\leq$ 0.02%, N $\leq$ 0.003%, Al/N $\geq$ 200, $0.058 \leq 11 \times [\text{Si}] - 14 \times [\text{Mn}] + 21 \times [\text{Al}] + 24 \times [\text{P}] \leq 0.078$, and the balance being Fe and inclusions. The method comprises: 1) steelmaking, and preparing a continuously cast slab having a thickness of 220-240 mm; and 2) carrying out hot rolling, normalizing, acid pickling, cold rolling, finished product annealing, cooling, coating and finishing on the continuously cast slab to prepare a non-oriented silicon steel finished product, wherein in the finished product annealing process, the annealing temperature is 880-900°C and the temperature is maintained for 60-90s.

No Figure to accompany the abstract