

# ABSTRACT

A non-oriented electrical steel sheet in which high strength and excellent magnetic properties are obtained and which is excellent in dimensional accuracy after blanking is provided. A non-oriented electrical steel sheet of this embodiment contains, in mass%, Si: 3.1 to 4.5%, and in addition, Ti, Si, Al, Zr, Nb, V, Mo, Cr, C, La, Ce, and N satisfy Formula (1) and Formula (2), a tensile strength TS is higher than 570 MPa, a work hardening amount WH defined by Formula (3) is less than 15 MPa, an average grain size D (μm) satisfies Formula (4), and a yield elongation is 0.5% or more.

$$\text{Si}/28+\text{Ti}/48+\text{Nb}/93+\text{V}/51+\text{Zr}/91+\text{Mo}/96+\text{Cr}/52 > \text{C}/12 \times 750 \quad (1)$$

$$\text{Si}/28+\text{Al}/27+\text{Ti}/48+\text{Zr}/91+\text{La}/139+\text{Ce}/140 > \text{N}/14 \times 1000 \quad (2)$$

$$\text{WH} = \text{Y}_{2.0} - \text{YS} \quad (3)$$

$$\text{D} < 80 - \text{Si} \times 10 \quad (4)$$

FIG.1