

【ABSTRACT】

Disclosed are a grain-oriented electrical steel sheet and a method of manufacturing the same. The method for manufacturing a grain-orientated electrical steel sheet according to an exemplary embodiment of the present invention includes: providing an electrical steel sheet before forming primary recrystallization or after forming the primary recrystallization; and forming a groove in a surface of the electrical steel sheet by radiating laser and simultaneously spraying gas onto the electrical steel sheet, in which energy density E_d and a laser scanning speed V_s of the radiated laser satisfy the following conditions,

$$1.0 \text{ J/mm}^2 \leq E_d \leq 5.0 \text{ J/mm}^2,$$

$$0.0518 \text{ mm/}\mu\text{sec} \leq V_s \leq 0.2 \text{ mm/}\mu\text{sec}$$