

Title (en)
THIN STEEL SHEET AND PROCESS FOR PRODUCING SAME

Title (de)
DÜNNES STAHLBLECH UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
TÔLE D'ACIER MINCE ET PROCÉDÉ DE PRODUCTION DE CETTE DERNIÈRE

Publication
EP 2781615 A1 20140924 (EN)

Application
EP 12850214 A 20121107

Priority
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Abstract (en)
A thin steel sheet having sheet thickness ≥ 1.6 mm, but tensile strength ≥ 780 MPa and Young's modulus ≥ 240 GPa in transverse direction is provided, where the steel sheet has composition including, in mass%, C: 0.06-0.12 %, Si: 0.5-1.5 %, Mn: 1.0-3.0 %, P: 0.05 % or less, S: 0.01 % or less, Al: 0.5 % or less, N: 0.01 % or less, Ti: 0.02-0.20 %, and the balance being Fe and incidental impurities, where the composition satisfies relations of Formula (1) and (2), and microstructure such that ferrite phase has area ratio ≥ 60 % and martensite phase has area ratio of 15-35 %, ferrite and martensite phases are 95 % or more in total, average grain size of ferrite is ≤ 4.0 μm and that of martensite is ≤ 1.5 μm , $0.11 \leq \text{C} - 12 / 47.9 \times \% \text{Ti} \leq 0.15$, where $\text{Ti}^* = \% \text{Ti} - 47.9 / 14 \times \% \text{N} - 47.9 / 32.1 \times \% \text{S}$

IPC 8 full level
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