

Title (en)

METHOD OF PRODUCING ULTRAHIGH-STRENGTH STEEL SHEETS AND STEEL SHEET THEREFOR

Title (de)

VERFAHREN ZUR HERSTELLUNG ULTRAHOCHFESTER STAHLBLECHE UND STAHLBLECH HIERFÜR

Title (fr)

PROCÉDÉ DE FABRICATION DE TÔLES EN ACIER ULTRARÉSISTANTES ET TÔLE EN ACIER CORRESPONDANTE

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Application

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Abstract (en)

[origin: WO2020058244A1] The invention relates to a process for producing an ultrahigh-strength, hot-rolled construction steel, wherein a steel having a carbon content not greater than 0.2% is produced, wherein diffusive transformation of the austenite is avoided by achieving sufficient retardation of transformation by the addition of manganese, chromium and boron, and wherein the steel material is cast in a known manner and the cast material is subjected to an increase in temperature for the purpose of hot rolling, wherein the strip after the rolling process is immediately and directly hardened, wherein the martensite microstructure forms from the deformed austenite and the material thus generated is then mechanically straightened in order to provide mobile dislocations, wherein the material is then annealed to establish the desired yield point while simultaneously keeping the tensile strength, toughness and forming properties present after the direct hardening, wherein the annealing temperature is between 100 and 200°C.

IPC 8 full level

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