

Title (en)
Method of manufacturing micro-alloyed construction steels

Title (de)
Verfahren zur Herstellung von mikrolegierten Baustählen

Title (fr)
Procédé pour la fabrication des aciers de construction micro-alliés

Publication
EP 0947590 A1 19991006 (DE)

Application
EP 99104265 A 19990303

Priority
DE 19814223 A 19980331

Abstract (en)
Microalloyed constructional steels are produced by rolling steels with increased silicon and/or copper, chromium and nickel contents in a compact strip production (CSP) plant. Microalloyed constructional steels are produced by subjecting a continuously cast slab to cutting into lengths, soaking, hot rolling to wide strip in a CSP rolling mill train, cooling and coiling, a yield strength of ≥ 480 MPa and an optimal strength and toughness combination being achieved by carrying out the steps described in patent application number DE 19725434.9-24 and by increasing the silicon content and/or the copper, chromium and nickel contents for controlled solid solution strengthening. An Independent claim is also included for a high strength microalloyed constructional steel produced by the above process. Preferred Features: The steel contains 0.41-0.60% Si, 0.11-0.30% Cu, 0.20-0.60% Cr and 0.10-0.60% Ni.

Abstract (de)
Zur weiteren Festigkeitssteigerung bei der Herstellung von mikrolegierten ferritisch-perlitischen Baustählen in einer CSP-Anlage wird vorgeschlagen, zusätzlich zur thermomechanischen Behandlung mit den Verfahrensschritten der deutschen Patentanmeldung Nr. 19725434.9-24 eine Mischkristallverfestigung durch einen einzelnen oder kombinierten erhöhten Zusatz der Legierungselemente Silicium, Kupfer, Chrom, Nickel herbeizuführen.

IPC 1-7
C21D 8/02; **B21B 1/26**; **B21B 1/46**; **C22C 38/02**

IPC 8 full level
C21D 8/02 (2006.01); **C22C 38/02** (2006.01); **B21B 1/46** (2006.01)

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Citation (search report)

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