Title (en)

PROCESS FOR PRODUCING THIN Cr-Ni STAINLESS STEEL SHEET EXCELLENT IN BOTH SURFACE QUALITY AND QUALITY OF MATERIAL

Title (de)

VERFAHREN ZUR HERSTELLUNG DÜNNER BLECHE AUS CR-NI UND ROSTFREIEM STAHL MIT AUSGEZEICHNETEN EIGENSCHAFTEN, SOWIE OBERFLÄCHENQUALITÄT UND MATERIALQUALITÄT

Title (fr)

PROCEDE DE FABRICATION DE TOLES MINCES EN ACIER INOXYDABLE Cr-Ni, DE QUALITE ET FINITION EXCELLENTES

Publication

EP 0378705 B1 19960131 (EN)

Application

EP 89908266 A 19890710

Priority

- JP 8900692 W 19890710
- JP 22147288 A 19880906
- JP 22147188 A 19880906
- JP 16909688 A 19880708
- JP 16909588 A 19880708
- JP 16909488 A 19880708

Abstract (en)

[origin: EP0378705A1] A process for producing Cr-Ni stainless steel sheet comprises (1) casting 18% Cr - 8% Ni stainless steel with a synchronous continuous caster, (2) quenching the thin cast piece at high temp., (3) hot or cold processing and (4) annealing. In step (1) the cooling rate for solidifying is 100 deg.C/sec. or more until the temp. decreases to 1100 deg.C. This produces very fine gamma grains. When the delta-Fe.cal(%), where delta- Fe.cal (%) = 3(Cr + 3/2Si + Mo + Nb + Ti) - 2.8 (Ni + 1/2Mn + 1/2Cu) - 84 (C + N) - 19.8 (%), is 2-10%, the following crystallisation conditions are present: The first crystallisation is a delta-phase crystalisation. The rate of gamma-phase crystallisation and growth is controlled during and after solidifying, and the starting temp. of gamma-phase crystallisation and deposition is made very low. When the obtd. cast is cooled to 1200 deg.C with a rate of 200 deg.C/sec. or more, the mean particulate size of the gamma-grains is 50 micron or less. The cooling after casting is carried out using gas and/or liq.

IPC 1-7

B22D 11/06; C21D 8/02; C21D 9/46

IPC 8 full level

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CPC (source: EP)

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Cited by

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