Title (en)

NICKEL-CHROMIUM-IRON-ALUMINUM ALLOY HAVING GOOD PROCESSABILITY

Title (de)

NICKEL-CHROM-EISEN-ALUMINIUM-LEGIERUNG MIT GUTER VERARBEITBARKEIT

Title (fr)

ALLIAGE NICKEL-CHROME-FER-ALUMINIUM PRÉSENTANT UNE BONNE APTITUDE À LA TRANSFORMATION

Publication

EP 2678458 B1 20170419 (DE)

Application

EP 12720397 A 20120217

Priority

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- DE 102012002514 A 20120210
- DE 2012000153 W 20120217

Abstract (en)

[origin: WO2012113373A1] The invention relates to a nickel-chromium-aluminum-iron alloy, comprising (in wt%) 12 to 28% chromium, 1.8 to 3.0% aluminum, 1.0 to 15% iron, 0.01 to 0.5% silicon, 0.005 to 0.5% manganese, 0.01 to 0.20% yttrium, 0.02 to 0.60% titanium, 0.01 to 0.2% zirconium, 0.0002 to 0.05% magnesium, 0.0001 to 0.05% calcium, 0.03 to 0.11% carbon, 0.003 to 0.05% nitrogen, 0.0005 to 0.008% boron, 0.0001 to 0.010% oxygen, 0.001 to 0.030% phosphorus, max. 0.010% sulfur, max. 0.5% molybdenum, max. 0.5% tungsten, the remainder nickel and the common contaminants resulting from the process, wherein the following relations must be satisfied: 7.7C - x°a < 1.0, wherein a = PN if PN > 0 or a = 0 if PN = 0. Here, x = (1.0 Ti + 1.06 Zr)/(0.251 Ti + 0.132 Zr), PN = 0.251 Ti + 0.132 Zr - 0.857 N, and Ti, Zr, N, and C are the concentration of the respective element in mass percent.

IPC 8 full level

C22C 19/05 (2006.01)

CPC (source: EP US)

C22C 19/05 (2013.01 - EP US); **C22C 19/055** (2013.01 - EP US); **C22C 19/056** (2013.01 - EP US); **C22C 19/058** (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US)

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