Title (en)

NICKEL-CHROMIUM-ALUMINIUM ALLOY WITH GOOD FORMABILITY, CREEP STRENGTH AND CORROSION RESISTANCE

Title (de)

NICKEL-CHROM-ALUMINIUM-LEGIERUNG MIT GUTER VERARBEITBARKEIT, KRIECHFESTIGKEIT UND KORROSIONSBESTÄNDIGKEIT

Title (fr)

ALLIAGE NICKEL-CHROME-ALUMINIUM AVEC BONNE FORMABILITÉ, LA RÉSISTANCE AU FLUAGE ET À LA CORROSION

Publication

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Application

EP 13731273 A 20130515

Priority

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- DE 2013000268 W 20130515

Abstract (en)

[origin: WO2013182177A1] The invention relates to a nickel-chromium-aluminum-iron alloy comprising (in wt.-%) 24 to 33% chromium, 1.8 to 4.0% aluminum, 0.10 to 7.0% iron, 0.001 to 0.50% silicon, 0.005 to 2.0% manganese, 0.00 to 0.60% titanium, 0.0002 to 0.05% each of magnesium and/or calcium, 0.005 to 0.12% carbon, 0.001 to 0.050% nitrogen, 0.0001 to 0.020% oxygen, 0.001 to 0.030% phosphorus, not more than 0.010% sulfur, not more than 2.0% molybdenum, not more than 2.0% tungsten, the remainder nickel and the usual process-related impurities, wherein the following relations must be satisfied: Cr + Al >= 28 (2a) and Fp <= 39.9 (3a) with Fp = Cr + 0.272* Fe + 2.36*Al + 2.22*Si + 2.48*Ti + 0.374*Mo + 0,538*W - 11.8*C (4a), wherein Cr, Fe, Al, Si, Ti, Mo, W and C is the concentration of the respective elements in % by mass.

IPC 8 full level

C22C 19/05 (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP KR RU US)

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