

Title (en)
NICKEL BASE SUPERALLOY

Title (de)
NICKEL-BASIS-SUPERLEGIERUNG

Title (fr)
SUPERALLIAGE A BASE DE NICKEL

Publication
EP 2451986 B1 20130821 (DE)

Application
EP 10726136 A 20100701

Priority
• EP 2010059368 W 20100701
• CH 10692009 A 20090709

Abstract (en)
[origin: WO2011003804A1] The invention relates to a nickel-based superalloy. The alloy according to the invention is characterized by the following chemical composition (listed in % by weight): 7.7-8.3 Cr, 5.0-5.25 Co, 2.0-2.1 Mo, 7.8-8.3 W, 5.8-6.1 Ta, 4.9-5.1 Al, 1.0-1.5 Ti, 1.0-2.0 Re, 0.11-0.15 Si, 0.1- 0.7 Hf, 0-0.5 Nb, 0.02-0.17 C, 50-400 ppm B, remainder Ni and production-related impurities. It is characterized by very high oxidation resistance, corrosion resistance, and good creep properties at high temperatures.

IPC 8 full level
C22C 19/05 (2006.01)

CPC (source: EP US)
C22C 19/057 (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
WO 2011003804 A1 20110113; CH 701415 A1 20110114; EP 2451986 A1 20120516; EP 2451986 B1 20130821; EP 2451986 B2 20171018; JP 2012532982 A 20121220; JP 5595495 B2 20140924; RU 2012104486 A 20130820; RU 2525952 C2 20140820; US 2012128527 A1 20120524; US 9017605 B2 20150428

DOCDB simple family (application)
EP 2010059368 W 20100701; CH 10692009 A 20090709; EP 10726136 A 20100701; JP 2012518908 A 20100701; RU 2012104486 A 20100701; US 201113332821 A 20111221