Title (en)

ALLOY, POWDER, METHOD AND COMPONENT

Title (de)

LEGIERUNG, PULVER, VERFAHREN UND BAUTEIL

Title (fr)

ALLIAGE, POUDRE, PROCÉDÉ ET COMPOSANT

Publication

EP 4291408 A1 20231220 (DE)

Application

EP 22722461 A 20220412

Priority

- DE 102021204746 A 20210511
- EP 2022059718 W 20220412

Abstract (en)

[origin: WO2022238072A1] The invention relates to a nickel-based alloy, comprising or in particular consisting of (in wt.%): carbon (C): 0.07% - 0.09%, in particular 0.08% - 0.09%, most particularly 0.08%, chromium (Cr): 9.0% - 10.0%, in particular 9.3% - 9.7%, most particularly 9.5%, cobalt (Co): 9.6% – 10.4%, in particular 10.0%, molybdenum (Mo): 1.3% – 1.5%, in particular 1.5%, tungsten (W): 3.0% – 3.4%, in particular 3.2%, titanium (Ti): 1.9% – 2.3%, in particular 2.1%, aluminium (Al): 5.6% – 6.3%, in particular, boron (B): 0.008% – 0.012%, in particualr, zirconium (Zr): 0.01% – 0.012%, tantalum (Ta): 1.0% – 1.4%, in particular, niobium (Nb): 0.8% - 1.0%, in particular 0.9%, silicon (Si): up to 0.011%, vanadium (V): 0.8% - 1.0%, in particular 0.9%, hafnium (Hf): 1.2% - 1.4%, in particular 1.3%, no rhenium (Re) and/or no ruthenium (Ru), nickel (Ni), in particular residual nickel (Ni), residual impurities up to 0.1%.

IPC 8 full level

B33Y 70/00 (2020.01); **B22F 5/00** (2006.01); **B22F 5/04** (2006.01); **C22C 1/04** (2023.01); **C22C 19/05** (2006.01)

CPC (source: EP KR)

B22F 5/009 (2013.01 - KR); **B22F 5/04** (2013.01 - KR); **B22F 10/28** (2021.01 - KR); **B33Y 70/00** (2014.12 - EP KR); **B33Y 80/00** (2014.12 - EP KR); **C22C 1/0433** (2013.01 - EP KR); **C22C 19/056** (2013.01 - EP KR); **C22C 19/057** (2013.01 - EP KR); B22F 5/009 (2013.01 - EP); B22F 5/04 (2013.01 - EP); B22F 10/28 (2021.01 - EP)

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021204746 A1 20221117; CN 117295612 A 20231226; EP 4291408 A1 20231220; KR 20240005035 A 20240111; WO 2022238072 A1 20221117

DOCDB simple family (application)

DE 102021204746 A 20210511; CN 202280034053 A 20220412; EP 2022059718 W 20220412; EP 22722461 A 20220412; KR 20237042133 A 20220412