

Title (en)
Aluminium die casting alloys

Title (de)
Aluminiumdruckgusslegierungen

Title (fr)
Alliages d'aluminium pour la coulée sous pression

Publication
EP 2924137 A1 20150930 (EN)

Application
EP 14168188 A 20140513

Priority
US 201461970586 P 20140326

Abstract (en)
An aluminum die-casting alloy comprising: 1 to 6 % by weight nickel, 1 to 5 % by weight manganese, 0.1 to 0.4 % by weight zirconium, 0.1 to 0.4 % by weight vanadium, 0.1 to 1 % by weight tungsten and/ or 0.1 to 1 % molybdenum, optionally up to 2 % by weight iron, optionally up to 1 % by weight titanium, optionally up to 2 % by weight magnesium, optionally up to 0.5 % by weight silicon, optionally up to 0.5 % by weight copper, optionally up to 0.5 % by weight zinc, optionally total maximum 5 % by weight transition elements including strontium, scandium, lanthanum, yttrium, hafnium, niobium, tantalum, and/or chromium, and aluminum as the remainder with further elements present as impurities due to production such that the total maximum of impurity elements is 1 % by weight.

IPC 8 full level
C22C 21/00 (2006.01); **C22F 1/04** (2006.01)

CPC (source: EP US)
C22C 21/00 (2013.01 - EP US); **C22F 1/04** (2013.01 - EP US)

Citation (applicant)
• WO 2011124590 A1 20111013 - RHEINFELDEN ALLOYS GMBH & CO KG [DE], et al
• KAUFMAN, J.G.; ROOY, E.L.: "Aluminum Alloy Castings: Properties, Processes, and Applications", AFS, 2004

Citation (search report)
• [X] EP 2653578 A1 20131023 - RHEINFELDEN ALLOYS GMBH & CO KG [DE]
• [A] US 2004261916 A1 20041230 - LIN JEN C [US], et al
• [A] JP S63219543 A 19880913 - SHOWA ALUMINUM CORP
• [A] JP H01132733 A 19890525 - KASEI NAOETSU KK

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FR3092777A1; CN107739857A; CN105970037A; CN109778028A; CN105950922A; CN106119637A; CN112567059A; US11421304B2; WO2020028730A1; WO2020165542A1; EP3924124B1

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

DOCDB simple family (publication)
EP 2924137 A1 20150930; US 2017101703 A1 20170413; WO 2015144387 A1 20151001

DOCDB simple family (application)
EP 14168188 A 20140513; EP 2015054180 W 20150227; US 201515127120 A 20150227