

Title (en)
THIXOTROPIC ALUMINIUM-SILICON-COPPER ALLOY SUITABLE FOR SEMI-SOLID SHAPING

Title (de)
THIXOTROPE ALUMINIUM-SILIZIUM-KÜPFER LEGIERUNG FÜR FORMGEBUNG IN HALBFESTEN ZUSTAND

Title (fr)
ALLIAGE THIXOTROPE ALUMINIUM-SILICIUM-CUIVRE POUR MISE EN FORME A L'ETAT SEMI-SOLIDE

Publication
EP 0886683 A1 19981230 (FR)

Application
EP 97914379 A 19970312

Priority
• FR 9700439 W 19970312
• FR 9603703 A 19960320

Abstract (en)
[origin: FR2746414A1] An aluminium alloy suitable for thixotropic shaping, comprising 5-7.2 wt % of Si, 1-5 wt % of Cu, < 1 wt % of Mg, < 3 wt % of Zn, < 1.5 wt % of Fe, and < 1 wt % each and < 3 wt % in all of other elements, with the proviso that % Si < 7.5 - % Cu/3, and including no non-remelted polyhedral silicon crystals when it is reheated in a semi-solid state to give a liquid fraction level of 35-55 %, is disclosed. The resulting parts produced by thixotropic shaping by means of said alloy have high mechanical strength and good elongation properties.

IPC 1-7
C22C 1/00; **C22C 21/02**; **C22C 21/04**

IPC 8 full level
B22D 17/00 (2006.01); **C22C 1/00** (2006.01); **C22C 1/02** (2006.01); **B22D 11/00** (2006.01); **C22C 21/02** (2006.01); **C22C 21/04** (2006.01)

CPC (source: EP US)
C22C 1/12 (2023.01 - EP US); **C22C 21/04** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL PT

DOCDB simple family (publication)
WO 9735040 A1 19970925; AT E183549 T1 19990915; AU 2164597 A 19971010; AU 715447 B2 20000203; BR 9708091 A 19990727; CA 2249464 A1 19970925; CA 2249464 C 20041214; CZ 293598 A3 19991013; DE 69700436 D1 19990923; DE 69700436 T2 20000203; DE 886683 T1 19990506; EP 0886683 A1 19981230; EP 0886683 B1 19990818; ES 2136468 T3 19991116; FR 2746414 A1 19970926; FR 2746414 B1 19980430; HU P9902156 A2 19991129; HU P9902156 A3 20011128; JP 2000506938 A 20000606; NO 984366 D0 19980918; NO 984366 L 19981118; PL 185416 B1 20030530; PL 329008 A1 19990301; SK 128098 A3 19990507; US 5879478 A 19990309

DOCDB simple family (application)
FR 9700439 W 19970312; AT 97914379 T 19970312; AU 2164597 A 19970312; BR 9708091 A 19970312; CA 2249464 A 19970312; CZ 293598 A 19970312; DE 69700436 T 19970312; DE 97914379 T 19970312; EP 97914379 A 19970312; ES 97914379 T 19970312; FR 9603703 A 19960320; HU P9902156 A 19970312; JP 53318897 A 19970312; NO 984366 A 19980918; PL 32900897 A 19970312; SK 128098 A 19970312; US 80639997 A 19970226