

Title (en)
STRUCTURAL COMPONENT MADE OF AN ALUMINUM ALLOY OF THE AlMgSi TYPE

Title (de)
STRUKTURBAUTEIL AUS EINER ALUMINIUMLEGIERUNG VOM TYP AlMgSi

Title (fr)
COMPOSANT STRUCTURAL CONSTITUE D'UN ALLIAGE D'ALUMINIUM DU TYPE AlMgSi

Publication
EP 1165848 A1 20020102 (DE)

Application
EP 00903476 A 20000218

Priority
• CH 0000088 W 20000218
• CH 39199 A 19990303

Abstract (en)
[origin: WO052216A1] An alloy of the AlMgSi type which is suited for producing structural components which are highly capable of absorbing kinetic energy by means of plastic deformation contains silicon provided in a wt. % ranging from 0.45 to 0.85, magnesium in a wt. % ranging from 0.35 to 1.0, copper in a wt. % ranging from 0.05 to 0.30, iron in a wt. % ranging from 0.05 to 0.25, vanadium in a maximum wt. % of 0.25, manganese in a maximum wt. % of 0.10, as well as impurities which result during production in a maximum wt. % of 0.05 individually and 0.15 in total, and aluminum as the remainder wt. %. The structural component is manufactured from a rolled strip or sheet of the alloy. Components made of this alloy are suited as safety parts used in the construction of vehicles. The alloy is also suited for producing vehicle body parts which comprise a high degree of flexibility without the occurrence of cracking and orange peel effects, in particular, for producing two-sheet structures such as an engine hood, door, and trunk lid of a passenger car. These structural components and vehicle body parts can be easily recycled together.

IPC 1-7
C22C 21/08; **C22F 1/05**

IPC 8 full level
C22C 21/08 (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP KR)
C22C 21/08 (2013.01 - EP); **C22F 1/05** (2013.01 - EP KR)

Citation (search report)
See references of WO 0052216A1

Cited by
EP3097216A4

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0052216 A1 20000908; AT E240414 T1 20030515; BR 0008629 A 20011218; CA 2363116 A1 20000908; CA 2363116 C 20060425; CH 693673 A5 20031215; CZ 20013107 A3 20020814; DE 50002180 D1 20030618; DK 1165848 T3 20030811; EP 1165848 A1 20020102; EP 1165848 B1 20030514; ES 2193048 T3 20031101; JP 2002538305 A 20021112; KR 100481231 B1 20050407; KR 20010102456 A 20011115; PT 1165848 E 20030829; TW 530093 B 20030501

DOCDB simple family (application)
CH 0000088 W 20000218; AT 00903476 T 20000218; BR 0008629 A 20000218; CA 2363116 A 20000218; CH 39199 A 19990303; CZ 20013107 A 20000218; DE 50002180 T 20000218; DK 00903476 T 20000218; EP 00903476 A 20000218; ES 00903476 T 20000218; JP 2000602826 A 20000218; KR 20017011081 A 20010831; PT 00903476 T 20000218; TW 89101864 A 20000203