

Title (en)

ALUMINIUM-BASED AMORPHOUS ALLOYS CONTAINING NICKEL AND SILICON AS THE MAJOR CONSTITUENTS, AND PROCESS FOR THEIR MANUFACTURE

Publication

EP 0196984 B1 19880615 (FR)

Application

EP 86420062 A 19860226

Priority

FR 8503318 A 19850227

Abstract (en)

[origin: US4731133A] The invention is directed to microcrystalline Al-based alloys produced by annealing an alloy formed initially in a substantially amorphous state by rapid solidification (about 104 K/sec) and having a composition consisting essentially of, in atomic %: from 5 to 30% Si from 11 to 22% Ni wherein the Ni may be partially substituted by Fe up to 10%, by V or B up to 5 atomic % each, or totally substituted by Mn up to 22 atomic %, and wherein $Fe+Ni+Si \leq 42\%$. In the microcrystalline state, in the vicinity of the first crystallization peak, there is a metastable hexagonal phase whose crystalline parameters are about $a=0.661$ nm and $c=0.378$ nm.

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C22C 21/00

IPC 8 full level

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CPC (source: EP US)

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Cited by

US5614036A; EP0566098A3; US5464463A; US5409661A; EP0561204A3; US7136547B2

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