

Title (en)

A method of manufacturing objects based on aluminium.

Title (de)

Verfahren zur Herstellung von Formkörpern auf Aluminiumbasis.

Title (fr)

Procédé de préparation d'articles à base d'aluminium.

Publication

**EP 0588439 A1 19940323 (EN)**

Application

**EP 93202681 A 19930916**

Priority

NL 9201606 A 19920917

Abstract (en)

The invention relates to a method of manufacturing objects containing aluminium, by starting from aluminium and other metals in powder form, and 0.5-50 vol.% additives, mixing said starting materials, densifying them, binding the particles together and carrying out a moulding process, whereby one starts with metals in their elementary condition in which besides aluminium up to 6.0 wt.% copper, up to 3.5 wt.% magnesium, up to 1.0 wt.% silicon, up to 5.5 wt.% zinc, up to 10.0 wt.% tin, and/or up to 6.0 wt.% nickel as element in powder form has been added and a ceramic hardener in particulate form in an amount of 5-20 vol.% pre-treated by annealing-drying in order to decrease the amount of hydrogen, followed by cold isotatic compression of the mixture into billets, which are subsequently degassed and sintered, whereby said degassing and said sintering take place in one heat treatment and whereby finally the sintered product is subjected to a heat treating process and cooled.

IPC 1-7

**B22F 1/00**; **C22C 32/00**; **C22C 1/05**

IPC 8 full level

**B22F 1/12** (2022.01); **C22C 1/05** (2006.01); **C22C 32/00** (2006.01)

CPC (source: EP US)

**B22F 1/09** (2022.01 - EP US); **B22F 1/12** (2022.01 - EP US); **C22C 1/05** (2013.01 - EP); **C22C 32/00** (2013.01 - EP US); **C22C 32/0036** (2013.01 - EP)

Citation (search report)

- [Y] US 4569822 A 19860211 - BROWN SANFORD W [US], et al
- [Y] US 4743299 A 19880510 - PRYOR MICHAEL J [US], et al
- [A] EP 0213113 A1 19870304 - MIBA SINTERMETALL AG [AT]
- [A] EP 0410417 A1 19910130 - UBE INDUSTRIES [JP]
- [A] FR 2607741 A1 19880610 - CEGEDUR [FR]
- [A] DATABASE WPI Section Ch Week 9211, Derwent World Patents Index; Class M22, AN 92-085195

Cited by

EP0877831A4; DE19950595C1; DE112009002512B4; US6468468B1; WO9705296A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0588439 A1 19940323**; NL 9201606 A 19940418

DOCDB simple family (application)

**EP 93202681 A 19930916**; NL 9201606 A 19920917