

Title (en)

Process for preparing metal articles with internal porosity

Title (de)

Verfahren zur Herstellung von Metallkörpern mit innerer Porosität

Title (fr)

Procédé de fabrication d'articles métalliques à porosité interne

Publication

**EP 0868956 B1 20030903 (DE)**

Application

**EP 98890051 A 19980226**

Priority

AT 34297 A 19970228

Abstract (en)

[origin: EP0868956A1] Production of metal bodies with homogeneous internal porosity involves (a) homogeneously mixing heavy metal and/or alloy powder, blowing agent powder and optionally non-metallic reactive and/or alloying component and/or a mixing aid; (b) compacting the powder mixture under isostatic pressure optionally in a closed container and/or at elevated temperature; and (c) heat treating the green body at least partially in the region between the solidus and liquidus temperatures of a lower melting heavy metal phase, formed as a result of chemical composition inhomogeneities, and in the region of the reaction and/or decomposition temperature of the blowing agent, to form porosity in the metal body, which is subsequently cooled. Also claimed is a heavy metal or alloy body produced especially by the above process and having  $\geq 40$  vol.% porosity and a carbon content of 0.05-4.1 wt.% and/or a nitrogen content of 0.002-0.3 wt.%.

IPC 1-7

**B22F 3/11**

IPC 8 full level

**B22F 3/11** (2006.01)

CPC (source: EP)

**B22F 3/1125** (2013.01)

Cited by

CN112662908A; AT412876B; EP3437766A4; US11298745B2; WO0054912A1

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI LU NL SE

DOCDB simple family (publication)

**EP 0868956 A1 19981007**; **EP 0868956 B1 20030903**; AT 406557 B 20000626; AT A34297 A 19991115; AT E248675 T1 20030915; DE 59809442 D1 20031009; ES 2202793 T3 20040401

DOCDB simple family (application)

**EP 98890051 A 19980226**; AT 34297 A 19970228; AT 98890051 T 19980226; DE 59809442 T 19980226; ES 98890051 T 19980226