

Title (en)

Rotationally symmetrical semi - product with varying properties through the cross-section

Title (de)

Rotationssymmetrisches Halbzeug mit über den Querschnitt variierenden Eigenschaften

Title (fr)

Demi-produit à symétrie de révolution dont la section possède des propriétés variables

Publication

EP 0593878 B1 19960605 (DE)

Application

EP 93113617 A 19930826

Priority

DE 4235303 A 19921020

Abstract (en)

[origin: EP0593878A1] The invention relates to a semi-finished product, in particular of copper or copper alloys, which is produced from a rotationally symmetrical preform (1) by hot and cold forming steps. The preform (1) itself is produced by spray compacting and consists of a core (9) and at least one outer layer (10) which is disposed around said core, which, as a result of modifying additives, with the formation of a flowing boundary, have variable properties. Suitable modifying additives are particles which are insoluble in the metal matrix and are introduced either into the core (9) or into the outer layer (10), or they are heterogeneous insoluble particles which are introduced both into the core (9) and into the outer layer (10).
<IMAGE>

IPC 1-7

C23C 4/12; **C23C 4/14**; **C23C 4/16**

IPC 8 full level

C23C 4/123 (2016.01)

CPC (source: EP US)

C23C 4/123 (2016.01 - EP US); **Y10T 428/12021** (2015.01 - EP US); **Y10T 428/12049** (2015.01 - EP US); **Y10T 428/12056** (2015.01 - EP US)

Designated contracting state (EPC)

CH DE FR GB IT LI SE

DOCDB simple family (publication)

EP 0593878 A1 19940427; **EP 0593878 B1 19960605**; DE 4235303 A1 19940421; DE 59302814 D1 19960711; FI 100703 B 19980213; FI 934602 A0 19931019; FI 934602 A 19940421; US 5613187 A 19970318

DOCDB simple family (application)

EP 93113617 A 19930826; DE 4235303 A 19921020; DE 59302814 T 19930826; FI 934602 A 19931019; US 51001095 A 19950801