

Title (en)

METHOD OF PRODUCING MULTIPLE MICROSTRUCTURE COMPONENTS

Title (de)

VERFAHREN ZUR HERSTELLUNG MEHRERER MIKROSTRUKTUR-KOMPONENTEN

Title (fr)

PROCEDE POUR PRODUIRE DES COMPOSANTS A MICROSTRUCTURES MULTIPLES

Publication

EP 1943040 A2 20080716 (EN)

Application

EP 06825557 A 20061005

Priority

- US 2006039147 W 20061005
- US 24911505 A 20051011

Abstract (en)

[origin: US2007081912A1] Methods are provided for manufacturing turbine disks each having a hub surrounded by a rim, the hub having a first microstructure and the rim having a second microstructure that is coarser than the first microstructure, the methods employing a first powder alloy having a first gamma prime solvus temperature and a second powder alloy having a second gamma prime solvus temperature that is less than the first gamma prime solvus temperature. One method includes the steps of forming an ingot from the first and second powder alloys, the ingot having an inner section having the first microstructure and an outer section having a microstructure that is less coarse than the second microstructure, and exposing the ingot to a temperature between the first and second gamma prime solvus temperatures while forming the ingot into a plurality of turbine disks to transform the microstructure of the outer section into the second microstructure.

IPC 8 full level

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