

Title (en)  
CASTING CORE FOR TURBINE ENGINE COMPONENTS AND METHOD OF MAKING THE SAME

Title (de)  
GIESSKERN FÜR TURBINENBAUTEILE UND DESSEN HERSTELLUNGSVERFAHREN

Title (fr)  
NOYAU DE COULÉE POUR COMPOSANTS DE TURBINE ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 2539091 B1 20201021 (EN)**

Application  
**EP 11702904 A 20110201**

Priority  
• US 71263210 A 20100225  
• US 2011023262 W 20110201

Abstract (en)  
[origin: US2011204205A1] A turbine engine component, such as a turbine blade or vane, with complex internal features can be cast using a core having a first region with normal resolution features and a second region with high resolution features. The core can be formed from a single structure. Alternatively, the first region can be defined by a first ceramic core piece, which can be formed by any conventional process, such as by injection molding or transfer molding. The second region can be defined by a second ceramic core piece formed separately by a method effective to produce high resolution features, such as tomo lithographic molding. The first core piece and the second core piece can be joined by interlocking engagement, such as by male and female dovetails. The high resolution features can be effective to produce high efficiency internal cooling features in the cast component.

IPC 8 full level  
**B22C 9/10** (2006.01)

CPC (source: EP US)  
**B22C 9/103** (2013.01 - EP US)

Citation (examination)  
• US 2003235272 A1 20031225 - APPLEBY MICHAEL [US], et al  
• US 2009183850 A1 20090723 - MORRISON JAY A [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2011204205 A1 20110825**; EP 2539091 A1 20130102; EP 2539091 B1 20201021; WO 2011106131 A1 20110901

DOCDB simple family (application)  
**US 71263210 A 20100225**; EP 11702904 A 20110201; US 2011023262 W 20110201