

Title (en)

Applying bond coat to engine components using cold spray

Title (de)

Auftragen einer Haftbeschichtung auf Motorbauteile mittels eines Kaltsprühverfahrens

Title (fr)

Dépôt d'une couche de liaison sur des organes de machine par pulvérisation à froid

Publication

EP 1705266 A2 20060927 (EN)

Application

EP 06251532 A 20060322

Priority

US 8838005 A 20050323

Abstract (en)

A process for applying a coating to a component (10) used in an engine is provided. The process includes the steps of providing a component (10) with at least one surface (24) to be coated, and depositing at least one layer of powder coating material onto the at least one surface (10) using a non-oxidizing carrier gas so that the powder coating material plastically deforms without melting and bonds to the at least one surface upon impact with the at least one surface. The process of the present invention has particular utility in applying bond coats to airfoil portions of turbine blades or vanes and to applying bond coats to combustion chamber liners.

IPC 8 full level

C23C 24/04 (2006.01); **F01D 5/00** (2006.01)

CPC (source: EP US)

C23C 24/04 (2013.01 - EP US); **F01D 5/288** (2013.01 - EP US); **F05D 2230/90** (2013.01 - EP US); **F05D 2300/611** (2013.01 - EP US)

Cited by

EP2327812A1; DE102009032564A1; EP3012350A1; ITCO20130018A1; CN105339525A; US10000851B2; WO2009103268A1; WO2010149141A3; WO2014184363A1; EP3012350B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1705266 A2 20060927; **EP 1705266 A3 20070117**; **EP 1705266 B1 20090902**; AT E441739 T1 20090915; CN 1837406 A 20060927; DE 602006008847 D1 20091015; JP 2006265732 A 20061005; SG 126092 A1 20061030; US 2006216428 A1 20060928

DOCDB simple family (application)

EP 06251532 A 20060322; AT 06251532 T 20060322; CN 200610068242 A 20060322; DE 602006008847 T 20060322; JP 2006079948 A 20060323; SG 200601822 A 20060320; US 8838005 A 20050323