

Title (en)
THERMAL BARRIER COATING SYSTEM AND METHOD FOR THE PRODUCTION THEREOF

Title (de)
WÄRMEDÄMMSCHICHTSYSTEM SOWIE VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
SYSTÈME DE COUCHES CALORIFUGES ET SON PROCÉDÉ DE FABRICATION

Publication
EP 2242866 A1 20101027 (DE)

Application
EP 09708297 A 20090129

Priority
• DE 2009000120 W 20090129
• DE 102008007870 A 20080206

Abstract (en)
[origin: WO2009097834A1] The invention discloses a method for producing a coating system on a component, in which at least one layer is applied to the component by means of atmospheric plasma spraying (APS) and at least one further layer is deposited by means of suspension plasma spraying (SPS). The layers are advantageously deposited in particular in the sequence APS + SPS or APS + SPS + APS or else APS + SPS + erosion layer. These sequences of layers applied in this way regularly have the effect of providing a first, porous layer and a second porous layer arranged thereupon, wherein the porosity of the second layer is greater than that of the first layer, and wherein the reflectivity is greater than that of the first layer. The increased reflectivity of the layer, in particular in the visible (VIS) and near infrared (NIR) wavelength ranges, advantageously brings about lower thermal loading of the substrate material, since only a smaller proportion of thermal radiation penetrates through the ceramic thermal barrier coating, and consequently also leads to the substrate (component) being heated up to a lesser extent.

IPC 8 full level
C23C 4/12 (2006.01); **C23C 28/00** (2006.01)

CPC (source: EP US)
C23C 4/11 (2016.01 - EP US); **C23C 4/134** (2016.01 - EP US); **C23C 28/322** (2013.01 - EP US); **C23C 28/345** (2013.01 - EP US); **C23C 28/3455** (2013.01 - EP US); **C23C 28/36** (2013.01 - EP US); **Y10T 428/249981** (2015.04 - EP US)

Citation (search report)
See references of WO 2009097834A1

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
DE 102008007870 A1 20090813; EP 2242866 A1 20101027; US 2011244216 A1 20111006; WO 2009097834 A1 20090813

DOCDB simple family (application)
DE 102008007870 A 20080206; DE 2009000120 W 20090129; EP 09708297 A 20090129; US 73560909 A 20090129