

Title (en)

COATING PROCESS, WORKPIECE OR TOOL AND ITS USE

Title (de)

BESCHICHTUNGSVERFAHREN, WERKSTÜCK ODER WERKZEUG UND DESSEN VERWENDUNG

Title (fr)

PROCÉDÉ DE REVÊTEMENT, PIÈCE OU OUTIL ET LEUR UTILISATION

Publication

EP 2268843 A1 20110105 (DE)

Application

EP 09731789 A 20090407

Priority

- EP 2009002537 W 20090407
- DE 102008019202 A 20080417

Abstract (en)

[origin: CA2716619A1] The invention relates to a process for coating a substrate composed of cemented hard material, a cermet, steel or ceramic with at least one Ti1-xAlxN layer by means of a DC sputtering process. The invention further relates to a workpiece or tool which has been coated by the abovementioned process and its use. It is an object of the present invention to provide a process by means of which it is possible to produce coatings which combine the advantages of the sputtering process and the arc process, i.e. make it possible to obtain a coating which has a low roughness and an advantageous (200) texture. A further object of the present invention is to provide a workpiece which has a coating having the properties mentioned. A further object of the present invention is to use tools which are particularly suitable for metal machining. The object achieved by the process is characterized in that ionization aids are used for increasing the plasma densities.

IPC 8 full level

C23C 14/00 (2006.01); **C23C 14/06** (2006.01); **C23C 14/34** (2006.01); **C23C 14/54** (2006.01); **C23C 30/00** (2006.01)

CPC (source: EP US)

C23C 14/0021 (2013.01 - EP US); **C23C 14/06** (2013.01 - EP US); **C23C 14/34** (2013.01 - EP US); **C23C 14/54** (2013.01 - EP US); **C23C 30/005** (2013.01 - EP US); **Y10T 407/1904** (2015.01 - US)

Citation (search report)

See references of WO 2009127344A1

Cited by

CN117548703A

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 102008019202 A1 20091022; BR PI0910657 A2 20150922; CA 2716619 A1 20091022; CN 101981222 A 20110223; EP 2268843 A1 20110105; JP 2011517733 A 20110616; KR 20100135806 A 20101227; MX 2010011294 A 20101109; RU 2010146622 A 20120527; US 2011020079 A1 20110127; US 8702912 B2 20140422; WO 2009127344 A1 20091022

DOCDB simple family (application)

DE 102008019202 A 20080417; BR PI0910657 A 20090407; CA 2716619 A 20090407; CN 200980111387 A 20090407; EP 09731789 A 20090407; EP 2009002537 W 20090407; JP 2011504350 A 20090407; KR 20107022904 A 20090407; MX 2010011294 A 20090407; RU 2010146622 A 20090407; US 86627609 A 20090407