

Title (en)

Method of manufacturing a flexible thermal barrier coating

Title (de)

Verfahren zum Herstellen einer flexiblen Wärmedämmschicht

Title (fr)

Procédé d'obtention d'une barrière thermique flexo-adaptative

Publication

EP 1645654 A1 20060412 (FR)

Application

EP 04291265 A 20040518

Priority

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Abstract (en)

A heat barrier comprises a layer (44) of a thermally insulating ceramic material such as ZrO₂-YO, at least 80 μ m thick, applied to an undercoated substrate (40) by thermal projection using a plasma arc torch. The ceramic layer is applied directly to an undercoat (42) at a rate of 40-100 g/mn in a single pass from a distance of 20-90 mm, using a torch with an arc intensity of 500-800 A moved at a rate of between 2 and 20 mm per second, so that after cooling at least two more or less vertical fissures (50) per millimeter are produced through the entire thickness of the ceramic layer.

IPC 8 full level

C23C 4/12 (2006.01); **C23C 28/00** (2006.01); **F01D 5/28** (2006.01)

CPC (source: EP)

C23C 4/073 (2016.01); **C23C 4/10** (2013.01); **C23C 4/134** (2016.01); **F01D 5/288** (2013.01); **F05D 2230/312** (2013.01); **F05D 2230/90** (2013.01); **F05D 2300/21** (2013.01); **F05D 2300/501** (2013.01); **F05D 2300/5021** (2013.01); **F05D 2300/50211** (2013.01)

Citation (search report)

- [YX] EP 1295964 A2 20030326 - SIEMENS WESTINGHOUSE POWER [US]
- [Y] US 5897921 A 19990427 - BOROM MARCUS PRESTON [US], et al
- [A] EP 0765951 A2 19970402 - UNITED TECHNOLOGIES CORP [US]
- [A] US 6306517 B1 20011023 - GRAY DENNIS MICHAEL [US], et al
- [A] EP 0897020 A1 19990217 - PYROGENESIS INC [CA]

Cited by

JP2013543073A; WO2012004525A1

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