

Title (en)
PROCESS FOR APPLYING CERAMIC MATERIAL.

Title (de)
VERFAHREN ZUM AUFTRAGEN VON KERAMISCHEM MATERIAL.

Title (fr)
PROCEDE POUR APPLIQUER UN MATERIAU CERAMIQUE.

Publication
EP 0425623 B1 19940316 (DE)

Application
EP 90906956 A 19900426

Priority
DE 3914722 A 19890504

Abstract (en)
[origin: WO9013681A1] Process for applying a coating of ceramic material on a substrate by plasma spraying. The material to be sprayed, which is incorporated in the plasma jet, includes a chemical compound one constituent of which is a nonmetallic element from the group N, C, B or from main groups VI or VII of the periodic classification, which decomposes, at least partially, in an inert environment before reaching the melting point and which is present in the solid phase in the applied state. To improve the process so that the chemical compound contained in the material can be applied to the substrate stoichiometrically, i.e., undecomposed, and form an impermeable, adherent, stable coating, the non-metallic element is incorporated in the plasma jet, in addition to the material to be sprayed, in a free form, not bound to a foreign element.

IPC 1-7
C23C 4/12

IPC 8 full level
C23C 4/12 (2006.01); **C23C 4/137** (2016.01)

CPC (source: EP)
C23C 4/137 (2016.01)

Citation (examination)

- International Metallurgical Reviews, volume 17, June 1972, Review 164, Metals Society (London, GB) I.A. Fischer: "Variables influencing the characteristics of plasma-sprayed coatings", pages 117-129, see page 122, right-hand column, lines 6-58
- Applied Physics Letters, volume 52, 21 March 1988, (New York, US) K. Tachikawa: "High Tc superconducting films of Y-Ba-Cu oxides prepared by low-pressure plasma spraying", pages 1011-1013, see page 1011, left-hand column; figure 1
- Welding Journal, volume 66, No. 2, February 1987, (Miami, Florida, US) G.M. Herterick: "Gas selection in plasma spraying", pages 27-30, right-hand column, lines 23-45; page 28, left hand column, right-hand column, page 30, left-hand column, line 16-end

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CN116121691A; US5573682A

Designated contracting state (EPC)
CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
WO 9013681 A1 19901115; CA 2032172 A1 19901105; CA 2032172 C 19971216; DE 3914722 A1 19901108; DE 59005005 D1 19940421; EP 0425623 A1 19910508; EP 0425623 B1 19940316

DOCDB simple family (application)
EP 9000674 W 19900426; CA 2032172 A 19900426; DE 3914722 A 19890504; DE 59005005 T 19900426; EP 90906956 A 19900426