

Title (en)  
Boriding agent

Title (de)  
Boriermittel

Title (fr)  
Agent de boruration

Publication  
**EP 0971047 A1 20000112 (DE)**

Application  
**EP 99111057 A 19990615**

Priority  
DE 19830654 A 19980709

Abstract (en)  
A metal boriding agent, including a potassium fluoroborate activator containing calcium fluoride, is new. A metal boriding agent comprises, apart from a boron source and an inert refractory diluent, 1-5 wt. % potassium fluoroborate and 5-40 wt. % calcium fluoride as activator. An Independent claim is also included for production of single phase Fe<sub>2</sub>B-containing boride layers on ferrous metal workpieces by covering the workpiece surface with the above boriding agent and heat treating at 800-1100 degrees C. Preferred Features: The boriding agent comprises (by wt.) 3-5 (especially 4)% boron carbide, 2-4 (especially 2.5)% potassium fluoroborate, 10-30 (especially 25)% calcium fluoride and 61-85 (especially 68.5)% silicon carbide.

Abstract (de)  
Die Erfindung betrifft ein Boriermittel zur Erzeugung von Boridschichten auf metallischen Werkstücken, das im wesentlichen aus borabgebenden Substanzen, aktivierenden Substanzen und im Rest aus feuerfestem, inerten Streckmittel besteht und das dadurch gekennzeichnet, ist daß es als aktivierende Substanz eine Kombination aus, bezogen auf die Gesamtmenge des Boriermittels, 1 bis 5 Gew.% Kaliumtetrafluoroborat und 5 bis 40 Gew.% Calciumfluorid enthält. Mit diesem Boriermittel lassen sich auf Werkstücken aus Eisenwerkstoffen einphasige, Fe<sub>2</sub>B-enhaltende Boridschichten erzeugen. Das Mittel führt zu geringeren Fluor- bzw. Fluoridemissionen.

IPC 1-7  
**C23C 8/70**

IPC 8 full level  
**C23C 8/68** (2006.01); **C23C 8/70** (2006.01)

CPC (source: EP US)  
**C23C 8/70** (2013.01 - EP US)

Citation (search report)

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

DOCDB simple family (publication)  
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