

Title (en)

Method for impregnating porous, fibrous or pulverulent materials with a melt of a metal or an alloy.

Title (de)

Verfahren zum Tränken von porösen, faserigen oder pulver- förmigen Werkstoffen mit der Schmelze eines Metalls oder einer Legierung.

Title (fr)

Procédé pour imprégner des matériaux poreux, fibreux ou pulvérulents avec un métal en fusion ou un alliage.

Publication

EP 0513685 B1 19950802 (DE)

Application

EP 92107799 A 19920508

Priority

DE 4115057 A 19910508

Abstract (en)

[origin: EP0513685A1] The invention relates to a method and a device for introducing or infiltrating molten metal (10) or molten metal alloys from an application region (6) into a receiving volume (infiltration space), the receiving volume (8), containing, for example, fibres, whiskers, particles or porous materials which are optionally to be embedded in the metal (alloy) and/or to be filled with metal, being evacuated and the metal (alloy) being forced under pressure into the receiving volume. According to the invention, the pressure on the molten metal (alloy) is increased by the increase in the volume of the melt relative to the solid metal which occurs as it melts, in particular by controlled melting of metal (alloy) introduced into the application region, and the metal (alloy) is thus forced into the receiving volume. <IMAGE>

IPC 1-7

B22D 19/14; **B22F 3/26**

IPC 8 full level

B22D 19/14 (2006.01); **B22F 3/26** (2006.01)

CPC (source: EP)

B22D 19/14 (2013.01); **B22F 3/26** (2013.01)

Cited by

DE10333038B4; DE19624643C2; EP1260293A1; FR2825041A1; AT406837B; US6595264B2

Designated contracting state (EPC)

FR GB IT

DOCDB simple family (publication)

EP 0513685 A1 19921119; **EP 0513685 B1 19950802**; DE 4115057 A1 19921112; DE 4115057 C2 19930311

DOCDB simple family (application)

EP 92107799 A 19920508; DE 4115057 A 19910508