

Title (en)

Production of metal matrix composites.

Title (de)

Herstellung von Verbundwerkstoffen mit Metallmatrix.

Title (fr)

Fabrication de matériaux composites à matrice métallique.

Publication

EP 0271222 A2 19880615 (EN)

Application

EP 87309973 A 19871111

Priority

US 93032786 A 19861112

Abstract (en)

A method of producing a composite cast article having a metal matrix containing divided dispersible solid material, i.e. divided solid filler, such as reinforcing fibres or particles, including the steps of stacking alternating layers (16) of initially solid metal and the dispersible solid (18) in a mold or die (10) having a wall laterally surrounding the stack; heating the wall to raise the temperature of the metal layers (16) above the liquidus, thereby to melt the metal in the stack; and exerting axially directed pressure on the stack to force the molten metal into the layer or layers (18) of dispersible solid, while solidifying the metal by controlling heat flow in such a manner that a solidification front advances unidirectionally, along the cavity axis, entirely through the or each metal-infiltrated filler layer.

IPC 1-7

B22D 19/14; **B22D 27/04**; **C22C 1/09**

IPC 8 full level

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CPC (source: EP KR)

B22F 7/00 (2013.01 - KR); **C22C 47/08** (2013.01 - EP); **C22C 47/20** (2013.01 - EP)

Cited by

US2017297674A1; EP0320302A3; DE19650056A1; EP0368785A1; AU625092B2; US5851686A; EP0312294A1; US10399657B2; DE19712624A1; DE19712624C2; WO9117011A1; US10179364B2; US10434568B2

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