

Title (en)
Method of casting a pasty metal

Title (de)
Verfahren zum Giessen eines pastenartigen Metalles

Title (fr)
Procédé de coulée d'un métal en phase pâteuse

Publication
EP 0605379 B1 19970709 (FR)

Application
EP 93870235 A 19931216

Priority
BE 9201158 A 19921228

Abstract (en)
[origin: EP0605379A1] The metal is cast in a hollow jet cooled externally between a casting vessel and an ingot mould and a finely divided metallic material injected into the inner volume of this hollow jet. The finely divided material is suspended in a non-oxidizing gas and it has an oxygen content which is as low as possible. It may consist of a powder of the same metal as the metal which is cast; it is then injected in a quantity which is equal to or less than 1% of the weight of the cast metal. As a variant, it may also consist of a powder of a metal other than the cast metal; it is then injected in a quantity of between 0.5 and 10% of the weight of the cast metal. Its particle size is preferably less than 1000 µm.

IPC 1-7
B22D 11/10

IPC 8 full level
B22D 11/112 (2006.01)

CPC (source: EP)
B22D 11/112 (2013.01)

Citation (examination)

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- A.Ramacciotti et la., Increasing solidification rate in continuous casting by injection of powdered metal into the mould, Steelmaking Proceedings AIME Conference, Chicago, vol.61, 1978, pages 443-450
- L.Heaslip et al., Model study of fluid flow and pressure distribution during SEN injection - Potential for reactive metal additions during continuous casting, Continuous Casting, AIME, vol.6, 1992, pages 99-114
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BE1017392A3; BE1016550A3; BE1014063A3; WO2013144668A1; US9004150B2; WO2008070935A1; US9498822B2

Designated contracting state (EPC)
BE DE FR GB LU

DOCDB simple family (publication)
EP 0605379 A1 19940706; EP 0605379 B1 19970709; BE 1006567 A6 19941018; DE 69312037 D1 19970814; DE 69312037 T2 19980212

DOCDB simple family (application)
EP 93870235 A 19931216; BE 9201158 A 19921228; DE 69312037 T 19931216