

Title (en)
COMPOSITE METAL PRODUCT

Title (de)
VERBUNDMETALLPRODUKT

Title (fr)
PRODUIT MÉTALLIQUE COMPOSITE

Publication
EP 3089839 A4 20170104 (EN)

Application
EP 14876789 A 20141230

Priority
• AU 2013905093 A 20131230
• AU 2014001176 W 20141230

Abstract (en)
[origin: WO2015100472A1] A centrifugally cast composite metal product having an axis of rotational symmetry and a mass of at least 5kg, comprises a host metal and insoluble solid refractory particles of & refractory material in a non-uniform distribution throughout the host metal. The particles have a density that is within 30% of the density of the host metal at its casting temperature.

IPC 8 full level
B22D 13/00 (2006.01); **B22D 13/04** (2006.01); **C22C 29/00** (2006.01); **C22C 29/06** (2006.01); **C22C 29/08** (2006.01); **C22C 29/10** (2006.01); **C22C 37/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/22** (2006.01)

CPC (source: EP US)
B22D 13/04 (2013.01 - EP US); **C22C 29/005** (2013.01 - EP US); **C22C 37/08** (2013.01 - EP US); **C22C 37/10** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP US); **B22F 2207/03** (2013.01 - EP US); **C22C 29/06** (2013.01 - EP US); **C22C 29/08** (2013.01 - EP US); **C22C 29/10** (2013.01 - EP US)

Citation (search report)
• [I] WO 2011094800 A1 20110811 - WEIR MINERALS AUSTRALIA LTD [AU], et al
• [XI] WO 9524513 A1 19950914 - DAVY ROLL COMPANY LIMITED [GB], et al
• [X] US 8141615 B1 20120327 - FERRANDO WILLIAM A [US], et al
• [X] CN 103418768 A 20131204 - UNIV SOUTHWEST
• [A] JP S58116970 A 19830712 - KUBOTA LTD
• [A] JP S586769 A 19830114 - KUBOTA LTD
• See references of WO 2015100472A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2015100472 A1 20150709; AU 2014374832 A1 20160616; AU 2014374832 B2 20180726; BR 112016015487 A2 20170808; BR 112016015487 B1 20210518; CA 2934084 A1 20150709; CA 2934084 C 20210330; CL 2016001685 A1 20161223; CN 105899311 A 20160824; CN 105899311 B 20200714; EA 033878 B1 20191204; EA 201691326 A1 20161130; EP 3089839 A1 20161109; EP 3089839 A4 20170104; EP 3089839 B1 20201118; PE 20160906 A1 20160908; PL 3089839 T3 20210308; US 2017022588 A1 20170126; ZA 201603623 B 20220428

DOCDB simple family (application)
AU 2014001176 W 20141230; AU 2014374832 A 20141230; BR 112016015487 A 20141230; CA 2934084 A 20141230; CL 2016001685 A 20160630; CN 201480071708 A 20141230; EA 201691326 A 20141230; EP 14876789 A 20141230; PE 2016000698 A 20141230; PL 14876789 T 20141230; US 201415106528 A 20141230; ZA 201603623 A 20160527