

Title (en)

STEEL MATERIAL COMPOSITION FOR PRODUCING PISTON RINGS AND CYLINDER LINERS

Title (de)

STAHLWERKSTOFFZUSAMMENSETZUNG ZUR HERSTELLUNG VON KOLBENRINGEN UND ZYLINDERLAUFBUCHSEN

Title (fr)

COMPOSITION DE MATÉRIAU À BASE D'ACIER POUR FABRIQUER DES SEGMENTS DE PISTON ET DES CHEMISES DE CYLINDRE

Publication

EP 2401533 B1 20160713 (DE)

Application

EP 09744326 A 20091013

Priority

- EP 2009007357 W 20091013
- DE 102009010726 A 20090226

Abstract (en)

[origin: WO2010097107A1] A steel material composition, in particular for producing piston rings and cylinder liners, comprises the following elements in the listed quantities, relative to 100% by weight of the steel material: 0.5 - 1.2% by weight C, 0 - 3.0% by weight Cr, 72.0 - 94.5% by weight Fe, 3.0 - 15.0% by weight Mn and 2.0 - 10.0% by weight Si. The composition can be produced by producing a melt of the starting materials and casting the melt in a prefabricated mold.

IPC 8 full level

F16J 9/26 (2006.01); **C21D 1/25** (2006.01); **C21D 6/00** (2006.01); **C21D 9/40** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01)

CPC (source: EP KR US)

C21D 1/25 (2013.01 - EP KR US); **C21D 6/005** (2013.01 - EP KR US); **C21D 6/008** (2013.01 - EP KR US); **C21D 9/08** (2013.01 - EP KR US); **C21D 9/40** (2013.01 - EP KR US); **C22C 38/008** (2013.01 - KR); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - KR); **C22C 38/28** (2013.01 - KR); **C22C 38/34** (2013.01 - EP KR US); **C22C 38/38** (2013.01 - EP KR US)

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2010097107 A1 20100902; BR PI0921529 A2 20160216; CN 102265069 A 20111130; CN 102265069 B 20141001; DE 102009010726 B3 20101209; EP 2401533 A1 20120104; EP 2401533 B1 20160713; JP 2012518766 A 20120816; JP 5465258 B2 20140409; KR 101622384 B1 20160518; KR 20110130394 A 20111205; PT 2401533 T 20160914; US 2011305592 A1 20111215; US 8277576 B2 20121002

DOCDB simple family (application)

EP 2009007357 W 20091013; BR PI0921529 A 20091013; CN 200980155137 A 20091013; DE 102009010726 A 20090226; EP 09744326 A 20091013; JP 2011551414 A 20091013; KR 20117017902 A 20091013; PT 09744326 T 20091013; US 200913203596 A 20091013