

Title (en)

WELLBORE ISOLATION DEVICE MADE FROM A POWDERED FUSIBLE ALLOY MATRIX

Title (de)

BOHRLOCHISOLIERUNGSVORRICHTUNG AUS EINER PULVERFÖRMIGEN SCHMELZBAREN LEGIERUNGSMATRIX

Title (fr)

DISPOSITIF D'ISOLATION DE PUITS DE FORAGE FABRIQUÉ À PARTIR D'UNE MATRICE D'ALLIAGE FUSIBLE EN POUDRE

Publication

EP 4242331 A2 20230913 (EN)

Application

EP 23162882 A 20140925

Priority

- US 201314136932 A 20131220
- EP 14870921 A 20140925
- US 2014057556 W 20140925

Abstract (en)

The present invention provides a method of producing at least a portion of a wellbore isolation device, the method comprising providing a fusible alloy matrix in a powdered form; placing at least the particles of the fusible alloy matrix powder into a mold; compacting the particles located inside the mold via an application of pressure; and fusing the particles together to form a solid material, wherein the solid material forms the at least a portion of a wellbore isolation device; wherein the metal of the fusible alloy is selected from lead, tin, bismuth, indium, cadmium, silver, gallium, zinc, antimony, copper, and combinations thereof; and wherein at least one phase of the fusible alloy matrix has a melting point below 250°C.

IPC 8 full level

C22C 1/04 (2023.01); **C22C 32/00** (2006.01)

CPC (source: EP)

C22C 1/04 (2013.01); **C22C 1/0483** (2013.01); **C22C 1/05** (2013.01); **C22C 12/00** (2013.01); **C22C 32/0089** (2013.01); **C22C 32/0094** (2013.01); **B22F 2998/10** (2013.01)

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

DOCDB simple family (publication)

WO 2015094449 A1 20150625; AR 098377 A1 20160526; AU 2014367184 A1 20160407; AU 2014367184 B2 20170302; CA 2925108 A1 20150625; CA 2925108 C 20191119; EP 3038773 A1 20160706; EP 3038773 A4 20170503; EP 4242331 A2 20230913; EP 4242331 A3 20231018; MX 2016006473 A 20160805

DOCDB simple family (application)

US 2014057556 W 20140925; AR P140104233 A 20141111; AU 2014367184 A 20140925; CA 2925108 A 20140925; EP 14870921 A 20140925; EP 23162882 A 20140925; MX 2016006473 A 20140925