

Title (en)

ARTIFICIAL TURF AND PRODUCTION METHOD

Title (de)

KUNSTRASEN UND HERSTELLUNGSVERFAHREN

Title (fr)

GAZON ARTIFICIEL ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 3122942 A1 20170201 (EN)

Application

EP 14714659 A 20140327

Priority

EP 2014056149 W 20140327

Abstract (en)

[origin: WO2015144223A1] The invention provides for a method of manufacturing artificial turf (1000). The method comprising the steps of: creating (100) a polymer mixture (100, 400, 500), wherein the polymer mixture is at least a three-phase system, wherein the polymer mixture comprises a first polymer (402), a second polymer (404), and a compatibilizer (406), wherein the first polymer and the second polymer are immiscible, wherein the first polymer forms polymer beads (408) surrounded by the compatibilizer within the second polymer; extruding (102) the polymer mixture into a monofilament (606); quenching (104) the monofilament; reheating (106) the monofilament; stretching (108) the reheated monofilament to deform the polymer beads into threadlike regions (800) and to form the monofilament into an artificial turf fiber (1004); incorporating (110) the artificial turf fiber into an artificial turf carpet (1002).

IPC 8 full level

E01C 13/08 (2006.01); **D01F 1/10** (2006.01); **D01F 6/46** (2006.01); **D01F 6/90** (2006.01); **D01F 6/92** (2006.01)

CPC (source: EP KR US)

D01D 5/0885 (2013.01 - US); **D01D 5/098** (2013.01 - US); **D01F 1/10** (2013.01 - EP KR US); **D01F 6/46** (2013.01 - EP KR US); **D01F 6/90** (2013.01 - EP KR US); **D01F 6/92** (2013.01 - EP KR US); **E01C 13/08** (2013.01 - EP KR US); **D10B 2321/021** (2013.01 - US); **D10B 2321/022** (2013.01 - US); **D10B 2331/02** (2013.01 - US); **D10B 2505/202** (2013.01 - KR US)

Citation (search report)

See references of WO 2015144223A1

Cited by

EP3508651A1; WO2019134827A1; EP3467167A1; EP3613897A1; EP3660208A1; US11987939B2; EP3553225A1; WO2023099574A1

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 2015144223 A1 20151001; AU 2014388095 A1 20160922; AU 2014388095 B2 20181101; CA 2943447 A1 20151001; CA 2943447 C 20180703; CN 105377391 A 20160302; CN 105377391 B 20200602; CN 111501130 A 20200807; DK 3122942 T3 20180219; EP 3122942 A1 20170201; EP 3122942 B1 20180103; ES 2658394 T3 20180309; HK 1217464 A1 20170113; JP 2017512927 A 20170525; JP 6429893 B2 20181128; KR 20160144979 A 20161219; KR 20190000402 A 20190102; NO 3122942 T3 20180602; NZ 724029 A 20190329; US 2017121856 A1 20170504

DOCDB simple family (application)

EP 2014056149 W 20140327; AU 2014388095 A 20140327; CA 2943447 A 20140327; CN 201480006624 A 20140327; CN 202010424403 A 20140327; DK 14714659 T 20140327; EP 14714659 A 20140327; ES 14714659 T 20140327; HK 16105382 A 20160511; JP 2016556922 A 20140327; KR 20167026149 A 20140327; KR 20187037332 A 20140327; NO 14714659 A 20140327; NZ 72402914 A 20140327; US 201415129456 A 20140327