

Title (en)  
ARTIFICIAL TURF FIBER FROM RENEWABLE POLYETHYLENE

Title (de)  
KUNSTRASENFASER AUS ERNEUERBARER POLYETHYLENE

Title (fr)  
FIBRE DE GAZON ARTIFICIEL À PARTIR D'UN POLYETHYLENE RENOUVELABLE

Publication  
**EP 3315640 A1 20180502 (EN)**

Application  
**EP 16196633 A 20161031**

Priority  
EP 16196633 A 20161031

Abstract (en)  
The invention relates to a method of manufacturing artificial turf (200), the method comprising: - creating (102) a polymer mixture (300, 400, 500) comprising #c a first polymer (304; 404;504) in an amount of at least 57% by weight of the polymer mixture, wherein a portion (304, 404, 506) of at least 30 % by weight of the first polymer is made from the renewable carbon source; and #c a second polymer (302; 402, 502) in an amount of at least 8 % by weight of the polymer mixture, the second polymer being HDPE; - extruding (104) the polymer mixture; - generating (106) the artificial turf fibers (202) from the extruded polymer mixture.

IPC 8 full level  
**D01F 6/46** (2006.01); **E01C 13/08** (2006.01)

CPC (source: EP)  
**D01F 6/46** (2013.01); **E01C 13/08** (2013.01)

Citation (applicant)  

- EP 1378592 A1 20040107 - TEN CATE THIOLON BV [NL], et al
- WO 2006066777 A1 20060629 - INNOVENE MFG BELGIUM NV [BE], et al
- WO 2008113566 A2 20080925 - BOREALIS TECH OY [FI], et al
- WO 2008098905 A2 20080821 - TESSITURE PIETRO RADICI S P A [IT], et al
- WO 2011134897 A2 20111103 - BASELL POLYOLEFINE GMBH [DE], et al
- WO 2012005974 A1 20120112 - DOW GLOBAL TECHNOLOGIES LLC [US], et al
- DENISE FAN; DER-JONG DAI; HO-SHING WU: "Ethylene formation by catalytic dehydration of ethanol: industrial considerations", MATERIALS, vol. 6, 2013, pages 101 - 115, XP055190432, DOI: doi:10.3390/ma6010101
- G. CHEN; S. LI; F. JIAO; Q. YUAN: "Catalytic dehydration of bioethanol to ethylene over TiO2/y-Al2O3 catalysts in microchannel reactors", CATALYSIS TODAY, vol. 125, 2007, pages 111 - 119, XP022136563

Citation (search report)  

- [ID] WO 2012005974 A1 20120112 - DOW GLOBAL TECHNOLOGIES LLC [US], et al
- [I] JP H11269811 A 19991005 - DIATEX KK
- [I] EP 2039831 A1 20090325 - DOMO ZELE NV [BE]
- [I] EP 1837423 A1 20070926 - DOMO ZELE NV [BE]
- [A] US 2011120902 A1 20110526 - BOSWELL EMILY CHARLOTTE [US], et al

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)  
**EP 3315640 A1 20180502**; EP 3741886 A1 20201125; WO 2018077850 A1 20180503

DOCDB simple family (application)  
**EP 16196633 A 20161031**; EP 20159358 A 20161031; EP 2017077118 W 20171024