Title (en)

SINGLE YARN, SINGLE YARN PRODUCT, AND PREPARATION METHOD THEREFOR

Title (de)

EINZELFADEN, EINZELFADENPRODUKT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FIL SIMPLE, PRODUIT EN FIL SIMPLE ET PROCÉDÉ DE PRÉPARATION CORRESPONDANT

Publication

**EP 3012358 A1 20160427 (EN)**

Application

**EP 13887549 A 20130620**

Priority

CN 2013077545 W 20130620

Abstract (en)

The invention relates to a single yarn, a single yarn product and a preparation method thereof, wherein the preparation method of the single yarn comprises: converging or converging and twisting an ultra high molecular weight polyethylene thin film or strip to obtain the single yarn. The single yarn product comprises at least a body prepared from the above-mentioned single yarn. The single yarn obtained by converging or converging and twisting the ultra high molecular weight polyethylene thin films or strips in the invention replaces traditional ultra high molecular weight polyethylene fibers to develop and prepare various products. In addition to the advantages of wear resistance, impact resistance, corrosion resistance, UV resistance and the like which are similar to those of the ultra high molecular weight polyethylene fibers, the single yarn also has the unique advantages of good structural integrity, high strength, high strength utilization ratio, high production efficiency, low processing cost, light weight, small linear density and the like, and therefore the single yarn can replace the traditional ultra high molecular weight polyethylene fibers in the preparation of various products and has a very wide application range.

IPC 8 full level

**D01F 6/04** (2006.01); **D01D 5/42** (2006.01); **D02G 1/02** (2006.01)

CPC (source: EP US)

**D01D 5/42** (2013.01 - EP US); **D01F 6/04** (2013.01 - EP US); **D02G 1/0286** (2013.01 - US); **D02G 3/06** (2013.01 - EP US); D10B 2321/0211 (2013.01 - EP US)

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 3012358 A1 20160427**; **EP 3012358 A4 20170405**; AU 2013393267 A1 20151224; AU 2013393267 B2 20170406; CA 2914513 A1 20141224; CA 2914513 C 20180424; CN 205974773 U 20170222; EA 031117 B1 20181130; EA 201592114 A1 20160630; JP 2016527409 A 20160908; KR 20160012193 A 20160202; US 2016145775 A1 20160526; WO 2014201652 A1 20141224

DOCDB simple family (application)

**EP 13887549 A 20130620**; AU 2013393267 A 20130620; CA 2914513 A 20130620; CN 2013077545 W 20130620; CN 201390001242 U 20130620; EA 201592114 A 20130620; JP 2016520218 A 20130620; KR 20157036215 A 20130620; US 201314900135 A 20130620