

Title (en)

Articles of highly oriented polyolefins of ultrahigh molecular weight, process for their manufacture, and their use.

Title (de)

Gegenstände aus hochorientierten Polyolefinen mit ultrahohem Molekulargewicht, deren Herstellung und Verwendung.

Title (fr)

Articles en polyoléfines hautement orientées de poids moléculaire ultra élevé, leur obtention et application.

Publication

EP 0311197 A2 19890412 (EN)

Application

EP 88202157 A 19880930

Priority

DE 3733426 A 19871002

Abstract (en)

The invention relates to articles consisting of highly oriented polyolefins having an ultrahigh molecular weight of more than 600,000 g/mol (weight-average molecular weight), especially filaments, fibers, yarns, fabrics and films, having good wetting and adhesive properties, especially on conventional matrix materials, which have been subjected to a plasma treatment of their surface, and also to a process for producing these articles and to their use for the manufacture of composites with the use of conventional matrix materials. In these composites, yarns according to the invention, for example, show a substantially higher adhesive strength than corresponding yarns which have not been plasma-treated, their tensile strength not being impaired by the plasma treatment.

IPC 1-7

D06M 10/00

IPC 8 full level

B29C 71/04 (2006.01); **C08J 5/06** (2006.01); **C08J 5/18** (2006.01); **C08J 7/00** (2006.01); **D01F 6/04** (2006.01); **D06M 10/00** (2006.01); **D06M 10/02** (2006.01); **D06M 10/06** (2006.01); **D06M 101/00** (2006.01); **D06M 101/16** (2006.01); **D06M 101/18** (2006.01); **D06M 101/20** (2006.01); **D06M 101/22** (2006.01)

CPC (source: EP KR)

D06B 19/00 (2013.01 - KR); **D06M 10/00** (2013.01 - KR); **D06M 10/025** (2013.01 - EP); **D06M 2101/18** (2013.01 - EP); **D06M 2200/50** (2013.01 - EP)

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Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI NL SE

DOCDB simple family (publication)

EP 0311197 A2 19890412; **EP 0311197 A3 19900328**; AU 2336988 A 19890406; AU 607544 B2 19910307; BR 8805048 A 19890509; CN 1035308 A 19890906; JP H026657 A 19900110; KR 890006898 A 19890616; KR 910000813 B1 19910209; ZA 887381 B 19890628

DOCDB simple family (application)

EP 88202157 A 19880930; AU 2336988 A 19881004; BR 8805048 A 19880930; CN 88107872 A 19881001; JP 24893188 A 19880930; KR 880012919 A 19881004; ZA 887381 A 19880930