

Title (en)

POLYOLEFIN-BASED SYNTHETIC FIBERS AND PRODUCTION METHOD THEREOF

Title (de)

POLYOLEFINBASIERENDE SYNTHESEFASERN UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)

FIBRES SYNTHETIQUES A BASE DE POLYOLEFINE, ET PROCEDE DE FABRICATION

Publication

**EP 1446518 B1 20071010 (EN)**

Application

**EP 01975559 A 20010928**

Priority

US 0130444 W 20010928

Abstract (en)

[origin: WO03029536A1] The invention provides a method for making fibers and yarns having improved dyeability with reactive and disperse dyes, resistance to staining and improved mechanical properties and characteristics. The method includes blending a polyolefin polymer and a fibril forming polymer to provide a mixture of polyolefin and fibril forming polymers. The mixture is conducted to a hot melt extruder to provide a substantially homogenous molten mixture of polyolefin and fibril forming polymers. The molten mixture is forced through a spinneret having a length to diameter (L/D) ratio ranging from about 3 to about 30 to provide a fiber having a polyolefin matrix and elongate, substantially discontinuous fibrils of the fibril forming polymer dispersed into the polyolefin matrix, whereby the exterior surface of the fibers is substantially devoid of fibrils. Fibers made by the process of the invention are useful as carpet face yarn, in textiles, upholstery and other industrial applications, like chemical industry and others.

IPC 8 full level

**D01D 5/36** (2006.01); **D01D 5/253** (2006.01); **D01F 6/46** (2006.01); **D01F 8/06** (2006.01); **D01F 8/12** (2006.01); **D02G 3/02** (2006.01)

CPC (source: EP)

**D01D 5/253** (2013.01); **D01F 6/46** (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 03029536 A1 20030410**; AT E375412 T1 20071015; AU 2001294875 B2 20070705; CA 2461945 A1 20030410; CA 2461945 C 20100420; DE 60130931 D1 20071122; DE 60130931 T2 20080717; DK 1446518 T3 20071105; EP 1446518 A1 20040818; EP 1446518 A4 20050907; EP 1446518 B1 20071010; EP 1446518 B9 20080305; ES 2295212 T3 20080416

DOCDB simple family (application)

**US 0130444 W 20010928**; AT 01975559 T 20010928; AU 2001294875 A 20010928; CA 2461945 A 20010928; DE 60130931 T 20010928; DK 01975559 T 20010928; EP 01975559 A 20010928; ES 01975559 T 20010928