

Title (en)  
THERMOPLASTIC RESIN FIBER, PRODUCTION METHOD THEREFOR, AND FABRIC THEREOF

Title (de)  
THERMOPLASTISCHE HARZFASER, HERSTELLUNGSVERFAHREN DAFÜR UND GEWEBE DAVON

Title (fr)  
FIBRE DE RÉSINE THERMOPLASTIQUE, SON PROCÉDÉ DE PRODUCTION, ET TISSU ASSOCIÉ

Publication  
**EP 3578699 A1 20191211 (EN)**

Application  
**EP 18747941 A 20180129**

Priority  
• JP 2017017934 A 20170202  
• JP 2018002800 W 20180129

Abstract (en)  
Disclosed herein is a thermoplastic resin fiber that uses highly versatile resin raw materials but exhibits high extensibility that is conventionally unknown. With a view to providing a method for producing the fiber and a fabric using the fiber, the thermoplastic resin fiber includes a thermoplastic resin containing a polyolefin resin, a polyamide resin, and a compatibilizer, and has a fracture elongation of 50% or more, wherein the compatibilizer is a modified elastomer having a reactive group that reacts with the polyamide resin. The fabric uses the thermoplastic resin fiber. The method includes a spinning step in which a thermoplastic resin composition obtained by melt-kneading a melt-kneaded product of the polyamide resin and the modified elastomer and the polyolefin is spun into a fiber.

IPC 8 full level  
**D01F 6/46** (2006.01)

CPC (source: EP KR RU US)  
**D01D 5/08** (2013.01 - EP US); **D01F 1/10** (2013.01 - EP US); **D01F 6/04** (2013.01 - EP KR); **D01F 6/46** (2013.01 - EP KR RU US); **D01F 6/60** (2013.01 - EP US); **D01F 6/80** (2013.01 - KR); **D10B 2321/02** (2013.01 - US); **D10B 2331/02** (2013.01 - 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 3578699 A1 20191211**; **EP 3578699 A4 20210310**; BR 112019012147 A2 20191105; CN 110226000 A 20190910; CN 110226000 B 20210115; JP 2018123457 A 20180809; JP 6455534 B2 20190123; KR 102137159 B1 20200723; KR 20190102290 A 20190903; RU 2719984 C1 20200423; SG 11201906421X A 20190827; US 2019382922 A1 20191219; WO 2018143136 A1 20180809

DOCDB simple family (application)  
**EP 18747941 A 20180129**; BR 112019012147 A 20180129; CN 201880008845 A 20180129; JP 2017017934 A 20170202; JP 2018002800 W 20180129; KR 20197023943 A 20180129; RU 2019126028 A 20180129; SG 11201906421X A 20180129; US 201816481118 A 20180129