

## Title (en)

Thermoplastic fibres with reduced surface tension

## Title (de)

Thermoplastfasern mit reduzierter Oberflächenspannung

## Title (fr)

Fibres thermoplastiques avec une tension de surface réduite

## Publication

**EP 2660372 A1 20131106 (DE)**

## Application

**EP 12166834 A 20120504**

## Priority

EP 12166834 A 20120504

## Abstract (en)

Reducing the surface tension of thermoplastic based fibers or filaments, comprises adding at least one copolymer of at least one alpha -olefin and at least one acrylic ester or methacrylic ester of an aliphatic alcohol to the thermoplastic material, and spinning the copolymer by the melt spinning process. Independent claims are also included for: (1) fibers or filaments with a reduced surface tension which are obtainable by melt-spinning of thermoplastic materials, preferably thermoplastic materials of polyamide or polyester, which are additives with at least one copolymer of at least one alpha -olefin and at least one acrylic ester or methacrylic ester of an aliphatic alcohol; and (2) products, preferably fleece, nonwovens, clothes, woven fabrics or knitted fabric obtained from the thermoplastic materials based on fibers or filaments with a reduced surface tension.

## Abstract (de)

Die vorliegende Erfindung betrifft ein Verfahren zur Herstellung von Thermoplastfasern mit reduzierter Oberflächenspannung sowie aus diesen Thermoplastfasern mit reduzierter Oberflächenspannung nach dem Schmelzspinnverfahren herzustellende Produkte, wobei der zu verwendende Thermoplast mit einem Copolymerisat aus mindestens einem  $\pm$ -Olefin und mindestens einem Acrylsäureester oder Methacrylsäureester eines aliphatischen Alkohols versetzt wird.

## IPC 8 full level

**C08L 23/08** (2006.01); **D01F 1/10** (2006.01); **D01F 6/60** (2006.01); **D01F 6/62** (2006.01); **D01F 6/90** (2006.01); **D01F 6/92** (2006.01)

## CPC (source: EP US)

**D01D 5/08** (2013.01 - US); **D01F 1/10** (2013.01 - EP US); **D01F 6/10** (2013.01 - EP US); **D01F 6/60** (2013.01 - EP US); **D01F 6/62** (2013.01 - EP US); **D01F 6/84** (2013.01 - US); **D01F 6/90** (2013.01 - EP US); **D01F 6/92** (2013.01 - EP US); **D10B 2331/02** (2013.01 - US); **D10B 2331/04** (2013.01 - US); **D10B 2401/021** (2013.01 - US)

## Citation (applicant)

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## 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 2660372 A1 20131106**; CN 104350188 A 20150211; EP 2844788 A1 20150311; EP 2844788 B1 20211027; HU E057122 T2 20220428; JP 2015520806 A 20150723; JP 6290183 B2 20180307; KR 101965471 B1 20190403; KR 20150003392 A 20150108; US 2015084231 A1 20150326; WO 2013164452 A1 20131107

## DOCDB simple family (application)

**EP 12166834 A 20120504**; CN 201380029189 A 20130503; EP 13721664 A 20130503; EP 2013059259 W 20130503; HU E13721664 A 20130503; JP 2015509449 A 20130503; KR 20147033720 A 20130503; US 201314398319 A 20130503