Title (en)

Electrically conductive filaments, fabrics made of these filaments and their use

Title (de)

Elektrisch leitfähige Fäden, daraus hergestellte Flächengebilde und deren Verwendung

Title (fr)

Fils conducteurs d'électricité, tissus fabriqués à partir de ceux-ci et leur utilisation

Publication

**EP 1961846 B1 20120104 (DE)**

Application

**EP 08001372 A 20080125**

Priority

DE 102007009119 A 20070224

Abstract (en)

[origin: EP1961846A2] The melt-spun thread useful in screen textiles and filter cloths for gas and fluid filters, comprises a thermoplastic polymer, a thermoplastic elastomer block copolymer, and soot particle in the form of aggregates aligned along the longitudinal axis of the thread. The aggregates form electrically conductive paths along the longitudinal axis of the thread. The thread is a core-skin or monofilament and has a modulus of elasticity of 0.1-5.5 GPa and an elastic elongation of greater than 1.5-4%. The aggregates are formed from primary particles connected with each other. The melt-spun thread useful in screen textiles and filter cloths for gas and fluid filters, comprises a thermoplastic polymer, a thermoplastic elastomer block copolymer, and soot particle in the form of aggregates aligned along the longitudinal axis of the thread. The aggregates form electrically conductive paths along the longitudinal axis of the thread. The thread is a core-skin or monofilament and has a modulus of elasticity of 0.1-5.5 GPa and an elastic elongation of greater than 1.5-4%. The aggregates are formed from primary particles connected with each other. The soot particle causes electrical conductivity of the thread of 1.0-10 ->5>Siemens/cm measured in the longitudinal direction of the thread. The core is formed from thermoplastic polymer. The weight ratio of core and skin is 70:30 to 50:50. An independent claim is included for textile surface structure such as fabric.

IPC 8 full level

**D01F 1/09** (2006.01); **D01F 6/92** (2006.01); **D01F 8/14** (2006.01); **D03D 15/56** (2021.01)

CPC (source: EP US)

**D01F 1/09** (2013.01 - EP US); **D01F 6/92** (2013.01 - EP US); **D01F 8/14** (2013.01 - EP US)

Cited by

DE102015015254A1; EP4063545A3; WO2010079440A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1961846 A2 20080827**; **EP 1961846 A3 20090902**; **EP 1961846 B1 20120104**; AT E540145 T1 20120115; DE 102007009119 A1 20080828; JP 2008231654 A 20081002; PT 1961846 E 20120319; US 2008207799 A1 20080828; US 2008207800 A1 20080828; US 7825174 B2 20101102

DOCDB simple family (application)

**EP 08001372 A 20080125**; AT 08001372 T 20080125; DE 102007009119 A 20070224; JP 2008032962 A 20080214; PT 08001372 T 20080125; US 7078208 A 20080221; US 7081808 A 20080221