Title (en)

CONDUCTIVE COMPOSITE FIBER

Title (de)

LEITFÄHIGE VERBUNDFASER

Title (fr)

FIBRE COMPOSITE CONDUCTRICE

Publication

EP 3690088 A1 20200805 (EN)

Application

EP 18859995 A 20180926

Priority

- JP 2017188003 A 20170928
- JP 2018035573 W 20180926

Abstract (en)

Provided is a conductive composite fiber formed from a polymer containing conductive carbon black in a polyamide resin as a conductive layer and thermoplastic resin as a nonconductive layer, wherein the conductive layer is exposed in three or more locations on the outside surface of the fiber in a cross section, the coefficient of variation (CV %) in the surface area of each conductive layer in a fiber cross section is 10% or less, and the average value of the area specific resistance is 4 log (Ω·cm). It is possible to provide a conductive composite fiber wherein the variation in the fiber surface specific resistance is suppressed and the variation in the exposed surface area of each conductive layer polymer in a fiber cross section is suppressed by exposure of the conductive layer in three or more locations on the fiber surface, crimping of the original yarn is suppressed by equal disposition, and antistatic performance for woven and knitted fabrics and carpets is improved.

IPC 8 full level

D01F 8/12 (2006.01)

CPC (source: EP KR US)

D01D 5/30 (2013.01 - KR); **D01F 1/09** (2013.01 - EP KR US); **D01F 8/12** (2013.01 - EP KR US); **D01F 8/14** (2013.01 - KR US); D10B 2401/16 (2013.01 - KR 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 3690088 A1 20200805; **EP 3690088 A4 20210630**; CN 110945167 A 20200331; JP 7107226 B2 20220727; JP WO2019065681 A1 20200910; KR 20200058378 A 20200527; US 2020216984 A1 20200709; WO 2019065681 A1 20190404

DOCDB simple family (application)

EP 18859995 A 20180926; CN 201880048857 A 20180926; JP 2018035573 W 20180926; JP 2018558782 A 20180926; KR 20207000077 A 20180926; US 201816647257 A 20180926