

Title (en)

PARTICULATE-LOADED POLYMER FIBERS AND EXTRUSION METHODS

Title (de)

PARTIKELBELADENE POLYMERFASERN UND EXTRUSIONSVERFAHREN

Title (fr)

FIBRES OPTIQUES DE PLASTIQUE CHARGÉES EN PARTICULES ET PROCÉDÉS D'EXTRUSION

Publication

EP 2038457 A4 20100714 (EN)

Application

EP 07797468 A 20070515

Priority

- US 2007068923 W 20070515
- US 42709406 A 20060628

Abstract (en)

[origin: WO2008002724A1] Particulate-loaded polymer fibers along with methods and systems for extruding polymeric fibers are disclosed. The particulate-loaded polymer fibers have a fiber body that includes a polymeric binder with a plurality of particles distributed within the polymeric binder. Some of the particles are completely encapsulated within the polymeric binder and others may be embedded such that they are partially exposed on the outer surface of the fiber body. The polymers used in the fibers may be of high molecular weight and the encapsulated particles may be preferentially distributed towards the outer surfaces of the fibers.

IPC 8 full level

D01F 1/02 (2006.01); **D01D 4/02** (2006.01); **D01F 1/10** (2006.01)

CPC (source: EP KR US)

D01D 4/02 (2013.01 - EP KR US); **D01F 1/10** (2013.01 - EP KR US); **D01F 6/60** (2013.01 - EP KR US); **D01F 8/12** (2013.01 - KR); **D06M 23/12** (2013.01 - KR); **Y10T 428/2933** (2015.01 - EP US)

Citation (search report)

- [A] US 2005022328 A1 20050203 - WEIHRAUCH GEORG [DE], et al
- [A] US 6136435 A 20001024 - YOSHIMURA MIE [JP], et al
- [A] WO 8601841 A1 19860327 - ELTECH SYSTEMS CORP [US]
- [A] US 5068073 A 19911126 - PENNING ALBERT J [NL], et al
- [A] DE 1435393 A1 19690123 - CELANESE CORP
- [A] US 5882690 A 19990316 - FUKUDA ZENPEI [JP], et al
- [A] US 4927585 A 19900522 - SUZUKI FUMIO [JP], et al
- [A] CERMAK, ROMAN ET AL: "Self-reinforcement of polymers as a consequence of elongation flow.", RHEOL ACTA, vol. (2006)45, 4 November 2005 (2005-11-04), pages 366 - 373, XP002584708, DOI: 10.1007/s00397-005-0052-4
- See references of WO 2008002724A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008002724 A1 20080103; BR PI0713313 A2 20120306; CN 101466880 A 20090624; CN 101466880 B 20130102; EP 2038457 A1 20090325; EP 2038457 A4 20100714; JP 2009542931 A 20091203; KR 20090028559 A 20090318; US 2008003430 A1 20080103

DOCDB simple family (application)

US 2007068923 W 20070515; BR PI0713313 A 20070515; CN 200780021557 A 20070515; EP 07797468 A 20070515; JP 2009518417 A 20070515; KR 20087031584 A 20081226; US 42709406 A 20060628