

Title (en)

SIZING AGENT FOR CARBON FIBERS

Title (de)

SCHLICHTEMITTEL FÜR KOHLENSTOFFFASERN

Title (fr)

AGENT DE COLLAGE POUR DES FIBRES DE CARBONE

Publication

EP 4141168 A1 20230301 (EN)

Application

EP 22192514 A 20220827

Priority

TW 110131956 A 20210827

Abstract (en)

A sizing agent for carbon fibers includes 2 to 30 parts by weight of a resin main agent (A) having at least one epoxy compound, 2 to 30 parts by weight of a resin main agent (B) having at least one acrylate compound, 0.5 to 15 parts by weight of a surfactant (C), 0.01 to 0.5 parts by weight of a hindered phenol agent (D), and a balance of a solvent, in which a particle diameter of the sizing agent is in a range from 0.01 to 0.5 μm .

IPC 8 full level

D06M 13/152 (2006.01); **D06M 15/263** (2006.01); **D06M 15/55** (2006.01); **D06M 101/40** (2006.01)

CPC (source: EP US)

D06M 13/152 (2013.01 - EP); **D06M 15/263** (2013.01 - EP US); **D06M 15/55** (2013.01 - EP US); **D06M 2101/40** (2013.01 - EP US); **D06M 2200/40** (2013.01 - EP US)

Citation (search report)

- [Y] JP 2009074229 A 20090409 - SANYO CHEMICAL IND LTD
- [Y] JP 2002088655 A 20020327 - TAKEMOTO OIL & FAT CO LTD
- [Y] JP 2005146431 A 20050609 - MITSUBISHI RAYON CO
- [Y] JP 2006124877 A 20060518 - SANYO CHEMICAL IND LTD
- [Y] JP 5843562 B2 20160113

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4141168 A1 20230301; CN 114263043 A 20220401; CN 114263043 B 20240322; JP 2023033242 A 20230309; JP 7429268 B2 20240207; TW 202309370 A 20230301; TW I784693 B 20221121; US 2023093719 A1 20230323

DOCDB simple family (application)

EP 22192514 A 20220827; CN 202210064600 A 20220120; JP 2022134820 A 20220826; TW 110131956 A 20210827; US 202217897092 A 20220826