

Title (en)
FIBERS TO WHICH SILICONE HAS BEEN FIXED, AND PRODUCTION METHOD THEREOF

Title (de)
FASERN, AN DIE SILIKON FIXIERT IST, UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
FIBRES AUXQUELLES EST FIXÉE UNE SILICONE, ET PROCÉDÉ DE FABRICATION DE CELLE-CI

Publication
EP 3604666 A4 20210113 (EN)

Application
EP 18776645 A 20180316

Priority
• JP 2017072061 A 20170331
• JP 2017117114 A 20170614
• JP 2018010486 W 20180316

Abstract (en)
[origin: EP3604666A1] In one embodiment, the present invention relates to silicone-fixed fibers including fibers and silicone fixed to the fibers. The silicone includes an acrylic-modified organopolysiloxane (A) having two or more acrylic groups per molecule. A rate of decrease in the amount of Si after the silicone-fixed fibers are washed 10 times is less than 50%. The present invention relates to a method for producing silicone-fixed fibers. The method includes coating or impregnating the fibers with a fiber treatment agent containing silicone, and irradiating the fibers coated or impregnated with the fiber treatment agent with an electron beam so that the silicone is fixed to the fibers. The silicone includes an acrylic-modified organopolysiloxane (A) having two or more acrylic groups per molecule. Thus, the present invention provides silicone-fixed fibers that include fibers to which silicone is fixed by electron beam irradiation and have a good texture even after washing, and a method for producing the silicone-fixed fibers.

IPC 8 full level
D06M 15/643 (2006.01); **D06M 14/20** (2006.01)

CPC (source: EP US)
D06M 14/20 (2013.01 - EP US); **D06M 14/22** (2013.01 - EP); **D06M 14/24** (2013.01 - EP); **D06M 15/3568** (2013.01 - EP);
D06M 15/643 (2013.01 - US); **D06M 15/6436** (2013.01 - EP)

Citation (search report)
• [XAI] US 4987180 A 19910122 - OHATA HIROYUKI [JP], et al
• [XAI] US 4464506 A 19840807 - ALBERTS HEINRICH [DE], et al
• [X] EP 0632157 A1 19950104 - SHINETSU CHEMICAL CO [JP], et al
• [XAI] US 4698406 A 19871006 - LO PETER Y K [US], et al
• [XAI] DODD K J ET AL: "ULTRAVIOLET RADIATION CURING TREATMENTS FOR SHRINK-RESISTANT WOOL FABRIC. PART I: MONOMER SYSTEMS", TEXTILE RESEARCH JOURNAL, SAGE PUBLICATIONS, LONDON, GB, vol. 68, no. 1, 1 January 1998 (1998-01-01), pages 10 - 16, XP000727935, ISSN: 0040-5175
• See references of WO 2018180601A1

Cited by
EP3604665A4; US11214920B2

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

DOCDB simple family (publication)
EP 3604666 A1 20200205; **EP 3604666 A4 20210113**; CN 110475928 A 20191119; CN 110475928 B 20221028; JP 2018172835 A 20181108; JP 7008432 B2 20220125; US 2020040520 A1 20200206

DOCDB simple family (application)
EP 18776645 A 20180316; CN 201880021919 A 20180316; JP 2017117114 A 20170614; US 201816499083 A 20180316