

Title (en)  
DILUTED SOLUTION OF SYNTHETIC FIBER TREATMENT AGENT, AND METHOD FOR MANUFACTURING SYNTHETIC FIBERS

Title (de)  
VERDÜNNTE LÖSUNG EINES KUNSTFASERBEHANDLUNGSMITTELS UND VERFAHREN ZUR HERSTELLUNG VON KUNSTFASERN

Title (fr)  
SOLUTION DILUÉE D'AGENT DE TRAITEMENT DE FIBRES SYNTHÉTIQUES ET PROCÉDÉ PERMETTANT DE FABRIQUER DES FIBRES SYNTHÉTIQUES

Publication  
**EP 3656897 B1 20230104 (EN)**

Application  
**EP 19767184 A 20190312**

Priority  
• JP 2018045711 A 20180313  
• JP 2019009844 W 20190312

Abstract (en)  
[origin: EP3656897A1] This diluted solution of a synthetic fiber treatment agent contains: a synthetic fiber treatment agent containing a smoothing agent, a non-ionic surfactant, and an antistatic agent; and a volatile diluent. When the total of the proportions of the synthetic fiber treatment agent and the volatile diluent in the diluted solution is defined as 100% by mass, the proportion of the synthetic fiber treatment agent is equal to or greater than 60% by mass and less than 100% by mass, and the proportion of the volatile diluent is greater than 0% by mass and less than or equal to 40% by mass, the kinematic viscosity of the diluted solution at 30 °C being greater than 0 mm<sup>2</sup>/s and less than 80 mm<sup>2</sup>/s, and the diluted solution being applicable to a prescribed spinning/stretching step in which there is used a spinning/stretching machine comprising a plurality of heating rollers for stretching a spun yarn.

IPC 8 full level  
**D02J 1/22** (2006.01); **D01D 5/096** (2006.01); **D01D 5/098** (2006.01); **D01D 5/16** (2006.01); **D01D 11/00** (2006.01); **D02G 1/02** (2006.01); **D02J 13/00** (2006.01); **D06M 11/05** (2006.01); **D06M 13/17** (2006.01); **D06M 13/184** (2006.01); **D06M 13/224** (2006.01); **D06M 13/256** (2006.01); **D06M 13/292** (2006.01); **D06M 13/46** (2006.01)

CPC (source: CN EP KR)  
**D01D 5/096** (2013.01 - EP KR); **D01D 5/098** (2013.01 - EP KR); **D01D 5/16** (2013.01 - EP KR); **D01D 11/00** (2013.01 - EP KR); **D01F 11/08** (2013.01 - CN); **D02G 1/026** (2013.01 - EP); **D02J 1/22** (2013.01 - EP); **D02J 1/224** (2013.01 - EP); **D02J 13/005** (2013.01 - EP); **D06M 11/05** (2013.01 - EP KR); **D06M 13/17** (2013.01 - EP KR); **D06M 13/184** (2013.01 - EP KR); **D06M 13/224** (2013.01 - EP KR); **D06M 13/256** (2013.01 - EP KR); **D06M 13/292** (2013.01 - EP KR); **D06M 13/46** (2013.01 - EP KR)

Cited by  
US11834777B2

Designated contracting state (EPC)  
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**EP 3656897 A1 20200527**; **EP 3656897 A4 20200819**; **EP 3656897 B1 20230104**; CN 111065767 A 20200424; CN 111065767 B 20221115; CN 115627563 A 20230120; JP 2019157303 A 20190919; JP 6480052 B1 20190306; KR 102161766 B1 20200929; KR 20200029604 A 20200318; TW 201938876 A 20191001; TW I701369 B 20200811; WO 2019176892 A1 20190919

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