

Title (en)

Process for the production of polyurethane-urea fibres containing a combination of polydimethylsiloxanes, alkoxyated polydimethylsiloxanes and fatty acid salts

Title (de)

Verfahren zur Herstellung von Polyurethanharnstofffasern durch Einspinnen einer Kombination aus Polydimethylsiloxan, alkoxyliertem Polydimethylsiloxan und Fettsäuresalz

Title (fr)

Procédé pour la fabrication de fibres de polyurethane-urée contenant une combinaison de polydiméthylsiloxanes, polydiméthylsiloxanes alcoxilés et sels d'acides gras

Publication

EP 1431429 A1 20040623 (DE)

Application

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Priority

DE 10258587 A 20021216

Abstract (en)

Production of polyurethaneurea fibers comprises spinning a polyurethaneurea solution containing 0.1-5% of a polydimethylsiloxane with a viscosity of 2-20 cS, 0.1-5% of an alkoxyated polydimethylsiloxane and 0.01-3% of a Group Ia-IIIa metal or zinc salt of C6-C30 fatty acid (all percentages are by weight of fibers). Production of polyurethaneurea fibers comprises spinning a polyurethaneurea solution containing 0.1-5% of a polydimethylsiloxane with a viscosity of 2-20 cS, 0.1-5% of an alkoxyated polydimethylsiloxane of formula (1) and 0.01-3% of a Group Ia-IIIa metal or zinc salt of C6-C30 fatty acid (all percentages are by weight of fibers): $PE = (CH_2)_3O(E_{Ov}/P_{Ow})_mZ$; EO = ethylene oxide; PO = propylene oxide; Z = H or 1-6C alkyl; v, w = 0 or more, but not both 0; x, y, m = 1 or more. An Independent claim is also included for polyurethaneurea fibers produced from a spinning solution as above, where the polydimethylsiloxane, alkoxyated polydimethylsiloxane and fatty acid salt are finely dispersed or dissolved in the fibers.

Abstract (de)

Es werden Polyurethanharnstofffasern beschrieben, die durch einen Trocken- oder Nassspinnprozess hergestellt werden und eine Mischung von Polydimethylsiloxan, alkoxyliertem Polydimethylsiloxan und Fettsäuresalz als Additiv fein dispergiert oder gelöst enthalten. Außerdem wird ein Verfahren zur Herstellung der Polyurethanharnstofffasern mit einer Mischung von Polydimethylsiloxan, alkoxyliertem Polydimethylsiloxan und Fettsäuresalz als Additiv beschrieben.

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Citation (search report)

- [DA] EP 0643159 A1 19950315 - BAYER AG [DE]
- [A] EP 0393422 A2 19901024 - BAYER AG [DE]
- [A] EP 0756026 A1 19970129 - BAYER FASER GMBH [DE]
- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 02 26 February 1999 (1999-02-26)

Cited by

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