

Title (en)

METHOD AND DEVICE FOR PRODUCING CELLULOSE FIBRES AND CELLULOSE FILAMENT YARNS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON CELLULOSEFASERN UND CELLULOSEFILAMENTGARNEN

Title (fr)

PROCEDE ET DISPOSITIF POUR LA PRODUCTION DE FIBRES CELLULOSIQUES ET DE FILS CONTINUS CELLULOSIQUES

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Application

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Abstract (en)

[origin: WO0134885A2] The invention relates to a method for producing cellulose fibres or filaments from cellulose according to the dry-wet extrusion process, using aqueous amine oxides as the solvent. According to said method a) cellulose with a cuoxam-DP in the region of between 250 and 3000 is dispersed in an aqueous amine oxide, b) the dispersion obtained is converted at a high temperature by dehydration and shearing into a homogenous solution with a zero shear viscosity in the region of between 600 and 6000 Pa·s at 85 DEG C, c) the solution is fed to at least one spinneret, d) the solution in each spinneret is formed into at least one capillary and the capillary or capillaries of each spinneret are drawn through a non-precipitative medium and are subsequently guided through a spinning bath where the cellulose fibres are precipitated and e) at the end of the spinning bath section, the cellulose fibres are separated from the currents of the spinning bath by deviation and the threads are drawn off. The method is characterised in that the dispersion in step b) is converted into a solution with a relaxation time of between 0.3 and 50 s at 85 DEG C and that the solution in step c) is passed through a flow chamber, common to the spinnerets, in which the residence time of the solution is at least equal to its relaxation time at the spinning temperature.

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