

Title (en)
METHOD AND DEVICE FOR CONTINUALLY PRODUCING A SUSPENSION OF CELLULOSE IN AN AQUEOUS AMINE OXIDE

Title (de)
VERFAHREN UND VORRICHTUNG ZUR KONTINUIERLICHEN HERSTELLUNG EINER SUSPENSION VON CELLULOSE IN EINEM WÄSSRIGEN AMINOXID

Title (fr)
PROCEDE ET DISPOSITIF POUR PRODUIRE EN CONTINU UNE SUSPENSION CELLULOSIQUE DANS UN AMINOXYDE AQUEUX

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Abstract (en)
[origin: WO0170819A1] The invention relates to a method for continually producing a suspension of cellulose in an aqueous tertiary amine oxide for the use according to the lyocell method. According to the inventive method, (a) a cellulose suspension is produced by means of cellulose and an amine oxide-free aqueous phase at a mass ratio ranging from 1:3 to 1:40, (b) the cellulose suspension is dewatered to form a material having a cellulose content ranging from 20 to 80 mass- % and (c) the moist cellulose material is mixed with water-containing amine oxide and is conveyed through a horizontal shear zone in such a way that a suspension having an amine oxide content in the liquid phase is produced after mixing, whereby said content ranges from 70 to 80 mass- % and the suspension essentially completely fills the available conveying cross-section in the shear zone. The inventive method is characterised in that, in step (c), water-containing amine oxide in the finely dispersed form is added to the moist cellulose material in a fall zone which is only partially filled by the cellulose material and that the cellulose material which is mixed with the amine oxide is inserted into the shear zone. The invention also relates to a device for carrying out said method that requires comparatively few apparatuses for producing the suspension. The throughput of the cellulose material can be increased, whereby said throughput is related to the volume of the shear zone.

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