

Title (en)
CELLULOSIC FIBRE COMPOSITION

Title (de)
CELLULOSEFASERZUSAMMENSETZUNG

Title (fr)
COMPOSITION DE FIBRE CELLULOSIQUE

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Application
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Abstract (en)
[origin: WO2012007363A1] The invention relates to a composition comprising cellulosic fibres having an average degree of substitution of anionic groups of from 0.001 to 0.25, and ° a length weighted mean fibre length up to 1,100 µm and a length weighted mean fibre width over 10 µm, or ° a length weighted mean fibre length up to 1,100 µm, and wherein at least 50 % by weight of the cellulosic material is insoluble in water, or ° a length weighted mean fibre length / width ratio up to 30, or ° a length weighted mean fibre width over 35 µm. The invention also relates to a composition comprising cellulosic fibres having a specific surface area of at least 1.5 m²/g, a length weighted mean fibre length / width ratio up to 30, and a dry solids content of at least 5 % by weight, based on the weight of the composition, or up to 30 % by weight, based on the total weight of the cellulosic fibres, of cellulosic fibres with a length weighted mean fibre length up to 100 µm. Method of producing a composition comprising cellulosic fibres which comprises subjecting cellulosic fibres to chemical treatment and mechanical treatment, wherein the chemical treatment comprises treating cellulosic fibres with (i) at least one agent containing a carboxyl group, optionally substituted, (ii) at least one oxidant and at least one transition metal, or (iii) at least one nitroxyl radical, and the mechanical treatment comprises subjecting cellulosic fibres to extrusion with a twin-screw extruder or a planetary roller extruder. The invention also relates to a method of producing a composition comprising cellulosic fibres which comprises subjecting cellulosic fibres having an average degree of substitution of anionic groups of from 0.001 to 0.25 to extrusion. The invention also relates to a composition comprising cellulosic fibres obtainable by the methods, a process for producing a cellulosic pulp mixture which comprises mixing the composition with cellulosic pulp, a cellulosic pulp mixture obtainable by the process, and the use of the composition and cellulosic pulp mixture as an additive in the production of paper and board, processes for producing paper and board in which the composition or cellulosic pulp mixture is used, paper and board obtainable by the processes, and various uses of the paper and board.

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