

Title (en)

PROCESS FOR THE PREPARATION OF POLYBENZAZOLE FILAMENTS AND FIBRES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON POLYBENZAZOLFADEN UND FASERN

Title (fr)

PROCEDE D'ELABORATION DE FILAMENTS ET DE FIBRES DE POLYBENZAZOLE

Publication

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Application

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Abstract (en)

[origin: WO9610661A1] Described is a continuous process for removing polyphosphoric acid from a polybenzazole dope filament, which comprises: (a) contacting the dope filament with water or a mixture of water and polyphosphoric acid under conditions sufficient to reduce the phosphorous content of the filament to less than 10,000 ppm by weight; and then (b) contacting the dope filament with an aqueous solution of an inorganic base under conditions sufficient to convert at least 50 percent of the polyphosphoric acid groups present in the filament to a salt of the base and the acid. It has been discovered that contacting the dope filament with a solution of a base after washing the filament to remove most of the residual phosphorous advantageously leads to an improvement in the initial tensile strength of the filament, as well as improved retention of tensile strength and/or molecular weight (of the polybenzazole polymer) following exposure to light and/or high temperatures.

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