

Title (en)
FIBROUS STRUCTURE CONTAINING ELASTIC POLYURETHANE YARN

Title (de)
FASERSTRUKTUR MIT ELASTISCHEM POLYURETHANGARN

Title (fr)
STRUCTURE FIBREUSE CONTENANT UN FIL DE POLYURÉTHANE ÉLASTIQUE

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Application
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Abstract (en)
[origin: US2022018043A1] The present invention relates to a fiber structure including an elastic polyurethane yarn. The elastic polyurethane yarn contains: 0.5 to 10 mass % of a cationic high-molecular-weight compound A having a number-average molecular weight of 2000 or more; and an inorganic chlorine deterioration inhibitor B. The mass ratio of the cationic high-molecular-weight compound A to the inorganic chlorine deterioration inhibitor B ranges from 0.3 to 3, and a silicone oil is applied to the elastic polyurethane yarn. The fiber structure is treated with water repellent finishing. The fiber structure preferably includes an elastic polyurethane yarn whose ratio of fluorine (F) to carbon (C) on the elastic polyurethane yarn is 0.030 or more in an elemental mass concentration according to scanning electron microscope-energy dispersive X-ray spectroscopy (SEM-EDX). Thereby, it is possible to provide a fiber structure having high water repellency and keeping a low water retention rate when immersed in water for an extended time.

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