

Title (en)

Method for covering the surface of technical-fabric fibers, in particular for screen-printing processes

Title (de)

Verfahren zum Überziehen von technischen Gewebefasern, insbesondere für Siebdruckverfahren

Title (fr)

Méthode pour recouvrir la surface de fibres de tissus techniques, en particulier pour les procédés d'impression sérigraphiques

Publication

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Application

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Priority

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Abstract (en)

The present invention relates to a method for surface-covering technical-fabric fibers, in particular for screen-printing processes, which comprises a starting step of preparing a base solution comprising at least a molecular precursor of Si, Al, Ti, Zr oxides, a polar organic solvent, either of a protic or an aprotic type, and water to promote hydrolysis and condensing of said precursors in the presence of an acid-pH reaction acid and in the presence of a surface active agent; a step of surface actuating fabrics with an opening larger than 50 µm and a fiber diameter larger than 10 µm, by a reaction with a concentrated mineral acid and a following treatment in concentrated H₂O₂; a covering step for covering the processed fabric by dipping it into the base solution, upon ageing the latter for such a time period as to induce rheologic properties for providing a homogeneous covering of fibers with a thickness less than 2 µm; and an end thermal processing step for evaporating the solvent off and thermally stabilizing the deposited material.

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Citation (search report)

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