

Title (en)
Composition for the treatment of fibre materials

Title (de)
Zusammensetzung für die Behandlung von Fasermaterialien

Title (fr)
Composition pour le traitement de matières fibreuses

Publication
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Application
EP 01101306 A 20010120

Priority
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Abstract (en)

The composition of a medium to treat fiber materials, and especially for finishing textiles, has a diol with perfluoroalkyl groups or a conversion product of such a diol with an acid. It also contains an ethoxylated fatty acid or alcohol, and an oxidized polyolefin wax. The textile finishing medium contains: (A) a diol with the formulation (RF-Z-X-CH₂(Y))_b2T, or a mixture of such diols and/or a conversion product of the diol with an acid and/or a mixtures of conversion products with adjustment of the pH value if necessary to 6-9; (B) an ethoxylate of a saturated or unsaturated fatty acid, or an ethoxylate of a saturated or unsaturated aliphatic alcohol with 8-24 carbon atoms; (C) an oxidized polyolefin wax and preferably polyethylene wax; and (D) water. RF = perfluorinated alkyl residue with 8-24 carbon atoms X = -O- or -S- or a simple chemical compound Z = -CH=CH-CH₂- or (CH₂)_a a = 2-6 Y = -CH(OH)-CH₂- b = 0 or 1 T = C(CH₂OH)₂ for N(CH₂R)_c, CH₂OH or N(CH₂R)_c as COO- M+ c = 1-4 R = hydrogen or an alkyl residue with 1-6 carbon atoms, and M+ = Na+, K+ or NH₄+. In the event that T is not for C(CH₂OH)₂ then b has a value of 1. Phosphoric acid or polyphosphoric acid is used for the diol conversion. The (A) component of the formula for the diol can have Z as (CH₂)_a with X for -O- or -S-, b has a value of 0 and T is for C(CH₂OH)₂, or it is a conversion product of the diol with an acid. The (A) component of the diol formula can have Z for -CH=CH-CH₂-, X for -O- and b with a value of 1, and T for N(CH₂R)_c, COO- M+ or CH₂OH. The composition is a watery dispersion, with a dispersion agent or a mixture of dispersion agents as an additional component (E). An additional component (F) is a polyorganosiloxane with an amino or amido function, or one or more polyoxyalkylene groups, bonded to each Si atom by an alkylene bridge. The composition is free of polysiloxane where there are fluoro atoms, SiH compounds, SiOH compounds and/or SiOR compounds, where R is a suitable organic residue, and in silicon atoms bonded to 3 or 4 oxygen atoms. An additional component (G) is an alkali metal sulfonate or a sodium olefin sulfonate. The component proportions as parts by weight, in relation to 100 parts by weight of water (component D) are A: 5-20 and preferably 7-15; B: 5-20 and preferably 7-15; C: 1-10 and preferably 2-7; E: 1-10 and preferably 2-7; F: 0.5-8.0 and preferably 1-6; G: 0.3-5.0 and preferably 0.5-3.0.

Abstract (de)

Es werden Zusammensetzungen beschrieben, welche sich für die Behandlung von Fasermaterialien, insbesondere für die Ausrüstung von Textilien eignen. Die Zusammensetzungen enthalten ein Diol, das Perfluoralkylgruppen aufweist oder ein Umsetzungsprodukt eines solchen Diols mit einer Säure. Sie enthalten ferner eine ethoxilierte Fettsäure oder einen ethoxilierten Alkohol und ein oxidiertes Polyolefinwachs. Mit den Zusammensetzungen können Textilien ölabweisende Eigenschaften, Hydrophilie, weicher Griff sowie gute soil-release-Eigenschaften verliehen werden.

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Citation (search report)

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