

Title (en)
WATERPROOF APERTURED SURFACES OR MATERIALS USING NANOPARTICLE HYDROPHOBIC TREATMENTS

Title (de)
PERFORIERTE WASSERDICHTE OBERFLÄCHEN ODER MATERIALIEN MIT BEARBEITUNG HYDROPHOBER NANOPARTIKEL

Title (fr)
MATÉRIAUX OU SURFACES À OUVERTURES IMPERMÉABLES UTILISANT DES TRAITEMENTS HYDROPHOBES DE NANOPARTICULES

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Application
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Priority

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Abstract (en)
[origin: WO2015070218A2] A method of manufacturing waterproof apertured materials or surfaces (10) using nanoparticle hydrophobic compositions and treatments, and preferably superhydrophobic compositions and treatments, wherein apertures (13) of a size that would normally render the surface or material (10) water-permeable may be provided in the surface or material (10). The method comprises determining the extent of the hydrophobic field (12) that extends beyond the physical edge of a particular treated intersecting member (11) interwoven to form the material (10) to determine the allowable size of an aperture (13), such that the extended hydrophobic field (12) present on the intersecting members (11) surrounding an aperture (13) will be sufficient to prevent surface wetting and water permeability by fully overlapping the aperture (13) or by presenting a reduced area effective aperture (14) that precludes passage of water.

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