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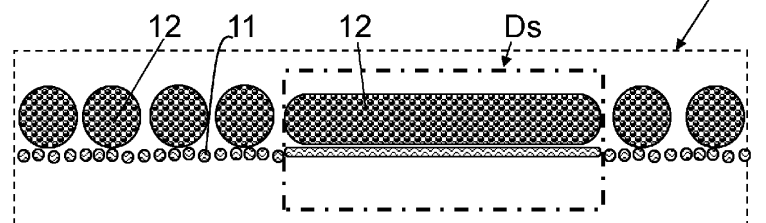
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(54) Title: TRANSPARENT COMPOSITE NANO-FIBRE BASED MULTI-LAYER TEXTILE

FIG. 1b



(57) Abstract: A composite multi-layer textile (1), comprising at least one nanofibre layer (11) with nanofibres with diameters below 100nm and one support layer (12) with microfibres with diameters below three microns, wherein the layers (11, 12) were produced by electrospinning and the multi-layer textile (1) shows a general transmittance (T%) at $\lambda = 550$ nm greater than 60%, is disclosed, which shows improved properties concerning transparency, breathability and robustness. This is achieved in that the at least one nanofibre layer (11) and the support layer (12) are fused, forming solid domains (Ds) in the multi-layer textile (1), at closed areas of a pattern used in the production process, wherein the solid domains (Ds) are separated from each other or connected, showing defined shapes, with regular or irregular spatial distribution, while the fibre morphology of nanofibres of the nanofibre layer (11) and microfibres of support layer (12) is preserved on top of the open areas beside the solid domains (Ds), attaining a general transmittance greater than that given by the sum of the individual layers (11, 12).

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