

Title (en)
FUNCTIONAL ELEMENT HAVING ELECTRICALLY CONTROLLABLE OPTICAL PROPERTIES

Title (de)
FUNKTIONSELEMENT MIT ELEKTRISCH STEUERBAREN OPTISCHEN EIGENSCHAFTEN

Title (fr)
ÉLÉMENT FONCTIONNEL À PROPRIÉTÉS OPTIQUES COMMANDABLES ÉLECTRIQUEMENT

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Application
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Abstract (en)
[origin: WO2019077014A1] The invention relates to a composite pane (100) having a functional element (5) having electrically controllable optical properties, comprising: a layer sequence of an outer pane (1), a first intermediate layer (3a), a second intermediate layer (3b) and an inner pane (2), the intermediate layers (3a, 3b) containing at least one thermoplastic polymer film having at least one plasticizer, a functional element (5) having electrically controllable optical properties being arranged at least in some regions between the first intermediate layer (3a) and the second intermediate layer (3b) and the functional element (5) being a polymer dispersed liquid crystal (PDLC) functional element and comprising a second layer sequence of at least a first carrier film (15), an active layer (11), and a second carrier film (14), at least one exit surface (8) of the active layer (11) on at least one lateral surface (5.1, 5.2, 5.3, 5.4) of the functional element (5) being sealed, at least in some sections, by means of at least one barrier layer (4), the barrier layer (4) being designed in such a way that the diffusion of plasticizer through the barrier layer (4) is largely prevented, and the barrier layer (4) being produced by a vacuum-based thin-film deposition method.

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