

Title (en)
CONSTRUCTION ELEMENT HAVING A CONTROLLABLE HEAT-TRANSFER COEFFICIENT U

Title (de)
KONSTRUKTIONSELEMENT MIT REGELBAREM WÄRMEDURCHGANGSKOEFFIZIENTEN U

Title (fr)
ÉLÉMENT DE CONSTRUCTION À COEFFICIENTS DE TRANSMISSION THERMIQUE U RÉGLABLES

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Application
EP 14701321 A 20140117

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Abstract (en)
[origin: WO2014114563A1] The present invention relates to a construction element (1) having a controllable heat-transfer coefficient U, comprising - a frame (7), - a first panel (3) and a second panel (5), which are opposite each other and which are arranged at a distance A from each other in the frame (7), wherein a closed volume V that is filled with at least one gas is defined by the first panel (3), the second panel (5), and the frame (7), - at least one planar element (9), the width of which corresponds to the vertical clear width W of the frame (7) and the height of which is less than the clear height H of the frame (7), wherein the planar element (9) is arranged between the first panel (3) and the second panel (5) in such a manner that the planar element ends laterally at the insides of the frame (7), and wherein an upper intermediate space (11) is formed between the planar element (9) and the frame (7) vertically upward and a lower intermediate space (13) is formed between the planar element (9) and the frame (7) vertically downward, - a first cavity (15), which is formed between the first panel (3) and the planar element (9) having a distance X, - a second cavity (17), which is formed between the planar element (9) and the second panel (5) having a distance Y, wherein the first cavity (15) and the second cavity (17) are connected by means of the upper intermediate space (11) and the lower intermediate space (13) in such a manner that a convection flow can flow between the first cavity (15) and the second cavity (17) via the upper intermediate space (11) and the lower intermediate space (13), - at least one means for controlling the convection flow, said means being arranged for the upper intermediate space (11) and/or for the lower intermediate space (13). The present invention further relates to the use of the construction element (1) according to the invention as a wall element and/or roof element in buildings and to a method for controlling the heat-transfer coefficient U in a construction element (1) according to the invention.

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