

Title (en)
Laminar structure providing adaptive thermal insulation

Title (de)
Laminatstruktur mit adaptiver Wärmeisolierung

Title (fr)
Structure laminaire fournissant une isolation thermique adaptative

Publication
EP 2481311 A2 20120801 (EN)

Application
EP 12152886 A 20120127

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Abstract (en)
The invention relates to a laminar structure (10) providing adaptive thermal insulation, comprising a first layer (22), a second layer (24), at least one cavity (16) provided in between the first layer (22) and the second layer (24), a gas generating agent (18) having an unactivated configuration and an activated configuration, the gas generating agent (18) being adapted to change from the unactivated configuration to the activated configuration, such as to increase a gas pressure inside the cavity (16), in response to an increase in temperature in the cavity (16), the first layer (22), the second layer (24) and the cavity (16) being arranged such that a distance (D) between the first layer (22) and the second layer (24) increases in response to the increase in gas pressure inside the cavity (16), the laminar structure (10) being configured to reversibly change, in response to an increase in temperature, the distance (D) between the first layer (22) and the second layer (24), from a first distance (D0) in the unactivated configuration of the gas generating agent (18) to a second distance (D1) in the activated configuration of the gas generating agent (18), and/or, in response to a decrease in temperature, from the second distance (D1) in the activated configuration of the gas generating agent (18) to the first distance (D0) in the unactivated configuration of the gas generating agent (18).

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Citation (applicant)
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