

Title (en)
THERMAL INSULATING MAT FOR BATTERY SYSTEMS

Title (de)
THERMISCHE ISOLATIONSMATTE FÜR BATTERIESYSTEME

Title (fr)
MAT D'ISOLATION THERMIQUE POUR SYSTÈMES DE BATTERIE

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Abstract (en)
[origin: WO2023285504A1] The present invention relates to a thermal insulating mat (1) for insulating adjacent battery cells (2), in particular prismatic battery cells, in battery systems, comprising an elastically deformable base plate (7) made of a fibre-elastomer composite, wherein a defined number of ribs (8) are provided on both main surfaces of the base plate (7), extending parallel to one another and spaced apart from one another transversely over the main surfaces of the base plate (7), wherein the arrangement of ribs on the two main surfaces is surrounded by a bordering frame (10), and there is a gap (11) between the ribs (8) and the frame (10), wherein the fibre-elastomer composite of the base plate (7) is formed from an elastomer matrix with at least one intermediate layer of mineral fibres embedded therein, and wherein the thermally insulating mat at the same time is able to compensate for the change in volume of the battery cells inherent in the system as a result of the chemical ageing of the cell components and the cyclical expansion and contraction of the cells during charging and discharging.

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