

Title (en)

TOTAL ENTHALPY HEAT EXCHANGE ELEMENT

Title (de)

WÄRMETAUSCHERELEMENT MIT TOTALENTHALPIE

Title (fr)

ÉLÉMENT D'ÉCHANGE DE CHALEUR À ENTHALPIE TOTALE

Publication

EP 2472210 A1 20120704 (EN)

Application

EP 09849483 A 20090916

Priority

JP 2009066163 W 20090916

Abstract (en)

In a total heat exchange element, unit components (10) each including a partition member (2) and spacers (3) are laminated with directions of the unit components alternately changed, flow passages, spaces among which are retained by the spaces (3), are formed among the partition members (2), two kinds of fluids are caused to pass through the flow passages adjacent to each other, and heat exchange is performed between the two kinds of fluids via the partition members (2). The partition member (2) has a heat transfer property, moisture permeability, and a gas blocking property. The spacer (3) is formed in a hollow cylindrical shape polygonal in section extending substantially in parallel along the surface of the partition member (2) and includes an overlapping wall (3b) that overlaps the partition member and supporting walls (3a) that rise from side ends of the overlapping wall (3b) and are vertically provided between the partition members (2) respectively being upper and lower parts in a laminating direction to retain a space between the partition members (2). The overlapping wall (3b) has thickness smaller than that of the supporting walls (3a) and stuck to the partition member (2) with an adhesive (5) having moisture permeability.

IPC 8 full level

F28D 21/00 (2006.01); **F24F 3/14** (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP KR US)

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Cited by

EP2321610A4; US9410462B2; US9441523B2

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