

Title (en)
HEAT-EXCHANGE NEST PLATES

Title (de)
WÄRMETAUSCHERHOHLPLATTEN

Title (fr)
PLAQUES CREUSES D'ECHANGE THERMIQUE

Publication
EP 2572152 A1 20130327 (FR)

Application
EP 11724463 A 20110518

Priority
• FR 1004470 A 20101117
• FR 1002075 A 20100518
• IB 2011052181 W 20110518

Abstract (en)
[origin: WO2011145065A1] The invention relates to a nest plate (12) manufactured by extrusion-blowing of a polymer or glass parison, between the two jaws of a suitable mould. The nest plate comprises a central area, taken up with a plurality of parallel inner channels (26-28), as well as external couplers (22-24) and transition areas (68-70) between said couplers and said central area. The walls of each channel optionally comprise stiffening raised patterns and, in either case, the thickness and width of said walls is coordinated to guarantee enough rigidity to enable said walls to maintain a substantially uniform, constant inner separation, in two inverse ranges of differential pressures and temperatures, determined by the type of material used. Fluid heat exchangers are made up of a non-constant stack of polymer nest plates, corrugated walls provided with couplers (22-24) constituting pipe sections, welded to one another in order to form collectors. Various improved devices can be manufactured using nest plates having flat walls, made of polymer or glass, used alone or stacked in a coplanar fashion. The invention can be used for fluid heat exchangers, solar water heaters, assembly and cooling panels for photovoltaic modules, and assembly and cooling panels for electronic circuits.

IPC 8 full level
F28F 1/00 (2006.01); **B29C 49/00** (2006.01); **F28F 21/06** (2006.01)

CPC (source: EP US)
B29C 49/00 (2013.01 - EP); **B29C 49/04** (2013.01 - EP US); **F28F 21/006** (2013.01 - EP); **F28F 21/065** (2013.01 - EP); **B29C 51/00** (2013.01 - EP); **B29C 2049/6606** (2022.05 - EP); **B29K 2105/12** (2013.01 - EP); **B29K 2307/04** (2013.01 - EP); **B29K 2309/08** (2013.01 - EP); **B29L 2031/18** (2013.01 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2011145065 A1 20111124; EP 2572152 A1 20130327

DOCDB simple family (application)
IB 2011052181 W 20110518; EP 11724463 A 20110518