

Title (en)

CAR FACE WALL ARCHITECTURE FOR A CAR SUCH AS A TRAIN CAR MADE FROM SANDWICH COMPOSITE MATERIAL

Title (de)

WAGENSTIRNWANDARCHITEKTUR FÜR EINEN WAGEN WIE Z. B. EINEN EISENBAHNWAGEN AUS SANDWICHVERBUNDMATERIAL

Title (fr)

ARCHITECTURE DE PAROI DE FACE DE VOITURE TELLE QU'UNE VOITURE DE TRAIN EN COMPOSITE SANDWICH

Publication

**EP 3206931 A1 20170823 (FR)**

Application

**EP 15781099 A 20151015**

Priority

- FR 1460011 A 20141017
- EP 2015073863 W 20151015

Abstract (en)

[origin: WO2016059147A1] The invention relates to a car (1) belonging to a rolling vehicle, characterised in that it comprises sidewalls (2) in the form of a single piece made from composite material comprising a sandwich structure (10) provided with a first skin (11) on the outside of the car, a second skin (12) on the inside of the car and a closed-cell foam (13a) or honeycomb (13b) core between the skins, said walls being provided with window openings (20) formed by interruptions in the drapes of longitudinal fibres, transverse fibres and intersecting diagonal fibres (100), said openings (20) having a polygonal shape that reduces the surface area of interrupted diagonal fibres (100) in the corners of the openings.

IPC 8 full level

**B61D 17/00** (2006.01)

CPC (source: EP US)

**B61D 1/00** (2013.01 - US); **B61D 17/005** (2013.01 - EP US); **B61D 17/08** (2013.01 - US); **B61D 17/18** (2013.01 - US);  
**Y02T 30/00** (2013.01 - EP US)

Citation (search report)

See references of WO 2016059147A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2016059147 A1 20160421**; EP 3206931 A1 20170823; FR 3027273 A1 20160422; FR 3027273 B1 20180427; JP 2017532255 A 20171102;  
US 2017240188 A1 20170824

DOCDB simple family (application)

**EP 2015073863 W 20151015**; EP 15781099 A 20151015; FR 1460011 A 20141017; JP 2017540309 A 20151015; US 201515518839 A 20151015