

Title (en)
MICROPOROUS POLYVINYL FLUORIDE PLANAR MEMBRANE AND PRODUCTION THEREOF

Title (de)
MIKROPORÖSE POLYVINYLIDENFLUORID-FLACHMEMBRAN UND IHRE HERSTELLUNG

Title (fr)
MEMBRANE PLATE HYDROPHOBE À BASE DE FLUORURE DE POLYVINYLIDÈNE ET PROCÉDÉ DE FABRICATION DE LADITE MEMBRANE

Publication
EP 3618943 A1 20200311 (DE)

Application
EP 15787635 A 20151102

Priority

- EP 14191465 A 20141103
- EP 2015075434 W 20151102

Abstract (en)
[origin: WO2016071271A1] Hydrophobic planar membrane, made from vinyl fluoride polymer comprising a wall, a first surface and a second surface. On the first surface thereof, the membrane has a network structure comprising open pores and, on the second surface thereof, has a continuous skin in which pores are formed, as well as, adjacent to the skin on the second surface, a support layer comprising pore structures which are isotropic over the wall thickness and which extend over at least 80% of the wall thickness, and the pores of which have a mean diameter of at least 1 µm. The average molecular weight MW of the vinyl fluoride polymer is in the range from 300,000 to 500,000 daltons, and the polydispersity MW/MN is greater than 5.5. The pores in the skin of the second surface have a closed circumference in the plane of the skin, and a mean ratio of the extension in the direction of the longitudinal axis thereof to the extension in the direction of the shortest axis thereof of 5 at the most. The pores in the first surface and in the second surface have a substantially isotropic distribution in the orientation thereof. The porosity of the membrane is in the range from 50 to 90 vol.%, and the wall thickness is in the range from 50 to 300 µm. The membrane has a maximum separation pore diameter dmax in the range from 0.05 to 1.5 µm.

IPC 8 full level
B01D 67/00 (2006.01); **B01D 71/34** (2006.01)

CPC (source: CN EP US)
B01D 61/364 (2013.01 - EP US); **B01D 67/0011** (2013.01 - US); **B01D 67/0018** (2013.01 - CN EP US); **B01D 69/02** (2013.01 - EP US); **B01D 71/34** (2013.01 - CN EP US); **B01D 61/364** (2013.01 - CN); **B01D 67/0011** (2013.01 - CN EP); **B01D 69/08** (2013.01 - EP US); **B01D 2323/08** (2013.01 - CN EP US); **B01D 2325/021** (2013.01 - CN EP US); **B01D 2325/026** (2013.01 - CN EP US); **B01D 2325/04** (2013.01 - CN EP US); **B01D 2325/24** (2013.01 - CN EP US)

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 2016071271 A1 20160512; CN 107073411 A 20170818; CN 107073411 B 20210507; EP 3618943 A1 20200311; JP 2017538579 A 20171228; JP 6728202 B2 20200722; TW 201622805 A 20160701; TW I669152 B 20190821; US 10960362 B2 20210330; US 2017312703 A1 20171102

DOCDB simple family (application)
EP 2015075434 W 20151102; CN 201580059813 A 20151102; EP 15787635 A 20151102; JP 2017542313 A 20151102; TW 104136017 A 20151102; US 201515520221 A 20151102