

Title (en)
PVC-MEMBRANE WITH REDUCED PLASTICIZER MIGRATION

Title (de)
PVC-MEMBRAN MIT VERRINGERTER WEICHMACHERMIGRATION

Title (fr)
MEMBRANE PVC DOTÉE D'UNE MIGRATION DE PLASTIFIANT RÉDUITE

Publication
EP 2834292 A1 20150211 (DE)

Application
EP 13716987 A 20130402

Priority

- EP 12162819 A 20120402
- EP 2013056908 W 20130402
- EP 13716987 A 20130402

Abstract (en)

[origin: EP2647660A1] Membrane (1) comprises a bulkhead layer (2), which is composed of more than 50 wt.% of PVC, and a barrier layer (3), where the barrier layer, on the one hand, is a barrier layer S1 having a polyvinyl alcohol layer (4) comprising more than 50 wt.% of copolymer polyamide (PA), which is connected to the bulkhead layer by a polyurethane layer (5). The polyurethane layer is composed of more than 10 wt.% of polyurethane (PUR), where the barrier layer, on the other hand, is a barrier layer S2 having a composition comprising 5-50 wt.% of PUR and 50-95 wt.% of copolymer PA. Membrane (1) comprises a bulkhead layer (2), which is composed of more than 50 wt.% of PVC, and a barrier layer (3), where the barrier layer, on the one hand, is a barrier layer S1 having a polyvinyl alcohol layer (4) comprising more than 50 wt.% of copolymer PA, which is connected to the bulkhead layer by a polyurethane layer (5). The polyurethane layer is composed of more than 10 wt.% of polyurethane (PUR), where the barrier layer, on the other hand, is a barrier layer S2 having a composition comprising 5-50 wt.% of PUR and 50-95 wt.% of copolymer PA. The PUR has at least one nucleophilic functional group consisting of hydroxyl group, carboxyl group, sulfonate group and phosphate group, where the co-polymer PA is an ethylene-vinyl alcohol copolymer. An independent claim is included for producing the membrane, comprising either (i) applying a polyurethane dispersion (PD) composition layer on the bulkhead layer, (ii) flashing off the PD to form the polyurethane layer, and (iii) forming a polyvinyl alcohol-layer on the polyurethane layer, or (ia) applying a composition Z1 comprising the PUR, co-polymer PA and solvent on the bulkhead layer, and (iia) flashing off the composition Z1 to form the barrier layer.

IPC 8 full level
C08J 7/04 (2006.01); **C08J 7/043** (2020.01); **E04D 5/06** (2006.01); **E04D 5/10** (2006.01)

CPC (source: EP US)
B05D 3/0254 (2013.01 - US); **B05D 3/0406** (2013.01 - US); **B05D 3/0413** (2013.01 - US); **B05D 3/0473** (2013.01 - US); **B05D 3/065** (2013.01 - US); **B05D 3/066** (2013.01 - US); **B05D 7/544** (2013.01 - US); **B05D 7/546** (2013.01 - US); **C08J 7/042** (2013.01 - EP US); **C08J 7/0427** (2020.01 - EP US); **C08J 7/043** (2020.01 - EP US); **E04D 5/10** (2013.01 - EP US); **C08J 2327/06** (2013.01 - EP US); **C08J 2429/04** (2013.01 - EP US); **C08J 2475/04** (2013.01 - EP US); **Y10T 428/3158** (2015.04 - EP US)

Citation (search report)
See references of WO 2013150009A1

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)
EP 2647660 A1 20131009; CN 104220498 A 20141217; CN 104220498 B 20170419; EP 2834292 A1 20150211; JP 2015519221 A 20150709; JP 6105714 B2 20170329; RU 2014136898 A 20160527; US 2015118404 A1 20150430; US 9428912 B2 20160830; WO 2013150009 A1 20131010

DOCDB simple family (application)
EP 12162819 A 20120402; CN 201380017798 A 20130402; EP 13716987 A 20130402; EP 2013056908 W 20130402; JP 2015503856 A 20130402; RU 2014136898 A 20130402; US 201314382696 A 20130402