

Title (en)  
HYDROGENATED NATURAL OILS TO THICKEN THE POLYOL COMPONENT OF A TWO-COMPONENT POLYURETHANE ADHESIVE FOR BONDING MEMBRANES

Title (de)  
HYDRIERTE NATÜRLICHE ÖLE ZUR VERDICKUNG DER POLYOLKOMPONENTE EINES ZWEIKOMPONENTIGEN POLYURETHANKLEBSTOFFS ZUM VERKLEBEN VON MEMBRANEN

Title (fr)  
HUILES NATURELLES HYDROGÉNÉES POUR ÉPAISSIR LE COMPOSANT POLYOL D'UN ADHÉSIF POLYURÉTHANE À DEUX CONSTITUANTS POUR COLLER DES MEMBRANES

Publication  
**EP 3856396 A4 20220622 (EN)**

Application  
**EP 19866600 A 20190928**

Priority  
• US 201862738088 P 20180928  
• US 2019053704 W 20190928

Abstract (en)  
[origin: WO2020069477A1] Disclosed is a high-penetration two-component polyurethane adhesive for separation apparatus, such as thin film composite reverse osmosis filtration membranes. The polyisocyanate reactive side of the two-component adhesive comprises hydrogenated castor oil or derivative thereof to increase the viscosity and provide a thixotropic property. Surprisingly, these high-viscosity polyisocyanate reactive components provide a two-component polyurethane adhesive exhibiting excellent penetration of the membranes used in such separation apparatus. Also disclosed is a method of using these two component polyurethane adhesives to bond these membranes to one or more other components of a separation apparatus.

IPC 8 full level  
**B01D 61/02** (2006.01); **B01D 63/10** (2006.01); **C08G 18/10** (2006.01); **C08G 18/48** (2006.01); **C09J 175/04** (2006.01)

CPC (source: EP US)  
**B01D 63/1031** (2022.08 - EP US); **C08G 18/10** (2013.01 - EP); **C08G 18/48** (2013.01 - EP); **C09J 175/04** (2013.01 - EP); **B01D 61/025** (2013.01 - EP); **B01D 2313/042** (2022.08 - EP US); **C08G 2340/00** (2013.01 - EP)

C-Set (source: EP)  
1. **C09J 175/04 + C08K 5/103**  
2. **C08G 18/10 + C08G 18/36**

Citation (search report)  
• [I] US 2015122407 A1 20150507 - CHARTREL JEAN FRANCOIS [FR], et al  
• [A] US 2015259583 A1 20150917 - KAHLE GORDON [US], et al  
• [A] US 2016298009 A1 20161013 - DEY TANMOY [US], et al  
• [A] CN 102911636 A 20130206 - VONTRON TECH CO LTD  
• [A] CN 103087668 A 20130508 - LANGFANG JINDAO QISHI PLASTIC INDUSTRY CO LTD  
• See also references of WO 2020069477A1

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 2020069477 A1 20200402**; CA 3112062 A1 20200402; CN 112770830 A 20210507; EP 3856396 A1 20210804; EP 3856396 A4 20220622

DOCDB simple family (application)  
**US 2019053704 W 20190928**; CA 3112062 A 20190928; CN 201980063435 A 20190928; EP 19866600 A 20190928