

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
13 January 2011 (13.01.2011)

PCT

(10) International Publication Number  
**WO 2011/006146 A2**

(51) International Patent Classification:

**B65D 77/04** (2006.01) **B67D 7/58** (2010.01)  
**B65D 25/14** (2006.01) **H01L 21/02** (2006.01)  
**B65D 85/84** (2006.01)

(21) International Application Number:

PCT/US2010/041629

(22) International Filing Date:

9 July 2010 (09.07.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

|            |                              |    |
|------------|------------------------------|----|
| 61/224,274 | 9 July 2009 (09.07.2009)     | US |
| 61/236,295 | 24 August 2009 (24.08.2009)  | US |
| 61/251,870 | 15 October 2009 (15.10.2009) | US |
| 61/294,928 | 14 January 2010 (14.01.2010) | US |

(71) Applicant (for all designated States except US): **ADVANCED TECHNOLOGY MATERIALS, INC.** [US/US]; 7 Commerce Drive, Danbury, CT 06810 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TOM, Glenn** [US/US]; 8646 Woodcliff Circle, Bloomington, MN 55438 (US). **BAUM, Tom** [US/US]; 3 Handol Lane, New Fairfield, CT 06812 (US). **KUSZ, Matt** [US/US]; 4348 34th Avenue South, Minneapolis, MN 55406 (US). **MENNING, Joseph** [US/US]; 3062 Lake Haven Court North, Prior Lake, MN 55372 (US). **NELSON, Greg** [US/US]; 1701 East 57th Street, Minneapolis, MN 55417 (US). **LEE, Dongyun** [US/JP]; Hiroo Garden Hills, C-103, 4-1-4 Hiroo Shibuya-ku, Tokyo 150-0012 (JP). **LIU, Wei** [CN/US]; 17557 George Moran Drive, Eden Prairie, MN 55347 (US). **KIM, Kanghyun** [KR/KR];

BP-601, Bo Jeong Dong, Giheong Yongin Giyuanggi (KR). **BOGGS, Karl** [US/US]; Hopewell Junction, New York, NY (US). **CHISM, Richard** [US/US]; 2544 Santa Barbara Loop, Round Rock, TX 78665 (US).

(74) Agents: **WITZANY, Nathan, J.** et al.; Dorsey & Whitney LLP, Suite 1500, 50 South Sixth Street, Minneapolis, MN 55402-1498 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: SUBSTANTIALLY RIGID COLLAPSIBLE LINER AND FLEXIBLE GUSSETED OR NON-GUSSETED LINERS AND METHODS OF MANUFACTURING THE SAME AND METHODS FOR LIMITING CHOKE-OFF IN LINERS

(57) Abstract: The present disclosure relates to a blow-molded, rigid collapsible liner that can be suitable particularly for smaller storage and dispensing systems. The rigid collapsible liner may be a stand-alone liner, e.g., used without an outer container, and may be dispensed from a fixed pressure dispensing can. Folds in the rigid collapsible liner may be substantially eliminated, thereby substantially reducing or eliminating the problems associated with pinholes, weld tears, and overflow. The present disclosure also relates to flexible gusseted or non-gusseted liners, which is scalable in size and may be used for storage of up to 200 L or more. The flexible gusseted liner may be foldable, such that the liner can be introduced into a dispensing can. The liner can be made of thicker materials, substantially reducing or eliminating the problems associated pinholes, and may include more robust welds, substantially reducing or eliminating the problems associated weld tears.



WO 2011/006146 A2