



(51) International Patent Classification:

B29C 47/06 (2006.01) B32B 27/26 (2006.01)
B32B 25/08 (2006.01) B60C 1/00 (2006.01)

(21) International Application Number:

PCT/US2011/036099

(22) International Filing Date:

11 May 2011 (11.05.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/838,076 16 July 2010 (16.07.2010) US

(71) Applicant (for all designated States except US):

EXXONMOBIL CHEMICAL PATENTS INC.
[US/US]; A Corporation Of The State Of Delaware, 5200
Bayway Drive, Baytown, TX 77520 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CARAWAY, Gre-**
gory, S. [US/US]; P.O. Box 2233, Baytown, TX 77522
(US). **SHANNON, Porter, C.** [US/US]; 1129 Carriage
Court, Seabrook, TX 77586 (US). **SILVA, Adriana, S.**

[BR/US]; 1609 Hawthorne Street, Houston, TX 77006
(US).

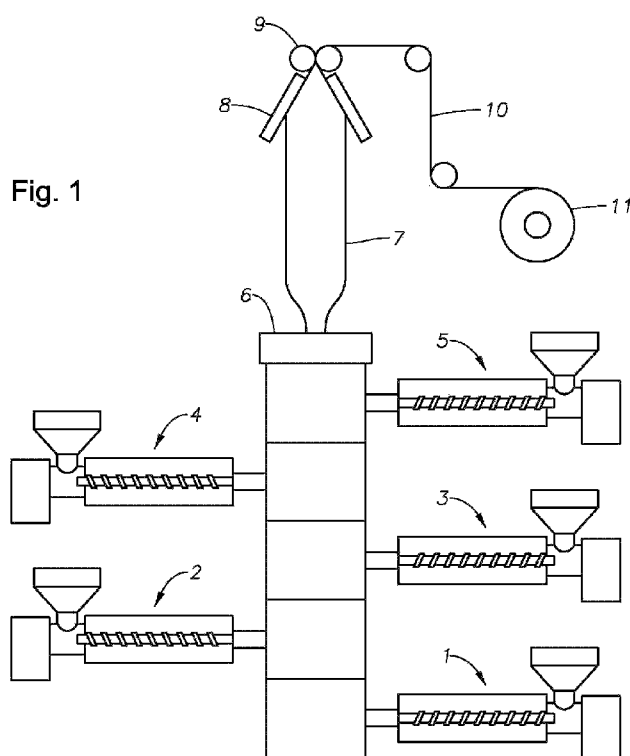
(74) Agents: **KRAWCZYK, Nancy, T.** et al.; ExxonMobil
Chemical Company, P.O. Box 2149, Baytown, TX
77522-2149 (US).

(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,

[Continued on next page]

(54) Title: ADHESIVE EXTRUSION FOR DYNAMICALLY VULCANIZED THERMOPLASTIC ELASTOMER LAMINATES



(57) Abstract: A coextrusion process for coextruding a thermoplastic elastomer with two outer layers of adhesive to form a film, and a laminate comprising a plurality of layers including an adhesive layer, a sublayer and a barrier layer. The barrier layer comprises a dynamically vulcanized thermoplastic elastomer composition present in one or more plies of the barrier layer. The sublayer comprises a first ply of a first adhesive composition joining the barrier layer and a second ply, and the adhesive layer comprises the second ply, which is vulcanizable with diene-based rubber. The sublayer of the adhesive can be laid down in contact with the relatively hot thermoplastic elastomer to moderate the temperature of the outer layer of the adhesive, whereby the outer layer of the adhesive at least is protected from scorching and can be co-vulcanized with rubber in a tire building process.



LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

— *as to the applicant's entitlement to claim the priority of
the earlier application (Rule 4.17(iii))*

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii))*

Published:

— *with international search report (Art. 21(3))*