

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 March 2010 (25.03.2010)

(10) International Publication Number
WO 2010/033161 A3

PCT

(51) International Patent Classification:

C08G 63/183 (2006.01) *C08G 63/85* (2006.01)
C08G 63/187 (2006.01)

(21) International Application Number:

PCT/US2009/005044

(22) International Filing Date:

8 September 2009 (08.09.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/098,060 18 September 2008 (18.09.2008) US

(71) Applicant: **EASTMAN CHEMICAL COMPANY** [US/
US]; 200 South Wilcox Drive, Kingsport, TN 37660
(US).

(72) Inventors: **JENKINS, Jason, Christopher**; 232 Charlton
Green Drive, Kingsport, TN 37663 (US). **BRICKEY,**
Dennis, Edward; 5219 Highway 126, Blountville, TN
37617 (US). **HOWELL, Earl, Edmondson, Jr.**; 3833
Bailey Ranch Road, Kingsport, TN 37660 (US).
GREENE, Carol, Juilliard; 250 Willowbend Drive,
Kingsport, TN 37660 (US).

(74) Agent: **CARRIER, Michael, K.**; P.O. Box 511,
Kingsport, TN 37662-5075 (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, TJ, TM, TN, TR, TT,
TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (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:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

24 June 2010

(54) Title: POLYESTER MELT-PHASE COMPOSITIONS HAVING IMPROVED THERMO-OXIDATIVE STABILITY, AND METHODS OF MAKING AND USING THEM

(57) Abstract: Polyester compositions are disclosed that include a melt-phase polyethylene terephthalate polyester having incorporated therein residues of a monomer having two or more fused aromatic rings, and that also include aluminum, and optionally an alkali metal or an alkaline earth metal. Also disclosed are articles that include the disclosed polyester compositions, and processes for producing such polyester compositions, that include the steps of forming a mixture comprising ethylene glycol, at least one acid chosen from terephthalic acid and derivatives of terephthalic acid, and a monomer having two or more fused aromatic rings; and reacting the mixture in the presence of aluminum, and optionally an alkali metal or an alkaline earth metal, to obtain the melt-phase polyethylene terephthalate polyester.



WO 2010/033161 A3