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(21) International Application Number: PCT/EP98/05423 (22) International Filing Date: 26 August 1998 (26.08.98) (30) Priority Data: 08/937,778 25 September 1997 (25.09.97) US (71) Applicant (for all designated States except MN): ARCO CHEMICAL TECHNOLOGY, L.P. [US/US]; Two Greenville Crossing, Suite 238, 4001 Kennett Pike, Greenville, DE 19807 (US). (71) Applicant (for MN only): ARCO CHEMIE TECHNOLOGIE NEDERLAND B.V. [NL/NL]; Theemsweg 14, NL-3197 KM Botlek Rotterdam (NL). (72) Inventors: KLANG, Jeffrey, A.; 410 Blanderston Drive, Exton, PA 19341 (US). YANG, Lau, S.; 2604 North Gate Road, Wilmington, DE 19810 (US). (74) Agent: SMAGGASGALE, Gillian, Helen; Mathys & Squire, 100 Grays Inn Road, London WC1X 8AL (GB).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: PROCESS FOR MAKING DICYCLOPENTADIENE POLYETHERESTER RESINS (57) Abstract A low-cost way to modulate the reactivity and acid number of polyetherester thermoset resins is disclosed. "Beginning" and "end" methods for making dicyclopentadiene (DCPD)-modified polyetherester resins are described. The "beginning" method comprises first heating a polyether, DCPD, a diol, an insertion catalyst, and a carboxylic acid derivative to produce a mixture that contains the polyether and a DCPD-diol diester adduct. Increasing the temperature causes insertion of the DCPD-diol diester into the polyether to give a DCPD polyetherester resin. The "end" method reacts a polyetherester resin made by insertion with DCPD to give a DCPD polyetherester resin. Compared with DCPD polyester resins, those of the invention give more flexible thermosets. Compared with unmodified polyetherester resins, the DCPD polyetherester resins offer formulators more control over curing, which eliminates mold distortion and shrinking or cracking of thermoset parts. Thermosets from blends of the subject resins and DCPD polyester resins show synergistic property improvements compared with thermosets from either resin alone.		

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