

Title (en)

BLEND OF FLEXIBLE COIL POLYMER AND THERMOTROPIC LIQUID CRYSTAL SEGMENTED BLOCK COPOLYMER

Publication

**EP 0593664 A4 19940615 (EN)**

Application

**EP 92915938 A 19920707**

Priority

- US 9205670 W 19920707
- US 72660091 A 19910708

Abstract (en)

[origin: WO9301238A1] Novel segmented block copolymers comprising mesogenic (or "rod") blocks and flexible coil polymer blocks are disclosed which are especially adapted to be blended with a substantially similar flexible coil polymer matrix to improve the mechanical properties of the flexible coil matrix. For example, blends of poly(butylene terephthalate) (PBT) with a liquid crystalline block copolymer, poly(tetramethylene 4,4'-terephthaloyldioxydibenzoate)-b-poly(butylene terephthalate) (LCP-b-PBT) were prepared by precipitation from a common solvent, dried, and melt extruded through a capillary die to produce a monofilament. In all blends, the LCP-b-PBT domains were less than 0.1  $\mu\text{m}$  in size and ultrafinely and uniformly dispersed. Even though the blends were only moderately elongated into fibrils, interfacial adhesion between the LCP-b-PBT and the pure PBT appeared excellent.

IPC 1-7

**C08L 67/02**

IPC 8 full level

**C08G 69/44** (2006.01); **C08L 67/00** (2006.01); **C08L 67/02** (2006.01); **C08L 69/00** (2006.01); **C08L 77/00** (2006.01)

CPC (source: EP)

**C08L 67/02** (2013.01); **C08L 67/025** (2013.01)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 9301238A1

Designated contracting state (EPC)

CH DE ES FR GB IT LI LU NL

DOCDB simple family (publication)

**WO 9301238 A1 19930121**; CA 2113114 A1 19930121; EP 0593664 A1 19940427; EP 0593664 A4 19940615; JP H06508879 A 19941006

DOCDB simple family (application)

**US 9205670 W 19920707**; CA 2113114 A 19920707; EP 92915938 A 19920707; JP 50237592 A 19920707