Title (en)

COPOLYMERS COMPRISING POLYAMIDE BLOCKS AND POLYETHER BLOCKS AND HAVING IMPROVED OPTICAL PROPERTIES

Title (de)

COPOLYMERE MIT POLYAMIDBLÖCKEN UND POLYETHERBLÖCKEN SOWIE VERBESSERTEN OPTISCHEN EIGENSCHAFTEN

Title (fr)

COPOLYMERES COMPORTANT DES BLOCS POLYAMIDE ET DES BLOCS POLYETHER, AYANT DES PROPRIETES OPTIQUES AMELIOREES

Publication

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Application

EP 07731639 A 20070216

Priority

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Abstract (en)

[origin: FR2897355A1] Copolymer comprises an alternating sequence of polyamide (PA) and polyether (PE) blocks. The PA block is obtained by polycondensation of a homopolyamide block. The PE block is a polyether block having hydroxyl-, diol- or 14 carbon amino terminals to bond with carboxyl terminals of the PA block. The PE block comprises polytrimethylene ether glycol or polyethylene glycol at 0-39 wt.% and polyether at 61-100 wt.%. The copolymer is characterized in that e.g. the crystallinity of the PA block greater than the crystallinity of a PA block of the same size. Copolymer comprises an alternating sequence of polyamide (PA) and polyether (PE) blocks. The PA block is obtained by polycondensation of a homopolyamide block of formula XY1. The PE block is a polyether block having hydroxyl-, diol- or 14 carbon amino terminals to bond with carboxyl terminals of the PA block. The PE block comprises polytrimethylene ether glycol or polyethylene glycol at 0-39 wt.% and polyether at 61-100 wt. %. The copolymer is characterized in that: the crystallinity of the PA block greater than the crystallinity of a PA block of the same size; and/or the PA/PE phase separation is greater than that of a PA12/polytetramethylene ether glycol (PTMG) copolymer with PA-12 blocks of the same size as the PA blocks and PTMG of the same size as the PE blocks. X : 4, preferably 6-14 carbon linear aliphatic diamine; and Y1 : 10, preferably 12 carbon carboxylic diacid, preferably 10-18C linear aliphatic diacids. Independent claims are included for: (1) a method of preparing the copolymer comprising preparing the PA block by polycondensation of the diamine in the presence of the diacid, PE blocks and a catalyst; and (2) a shaped article e.g. fiber, fabric, film, sheet, snap ring, tube, die-casting and a part of shoe sole obtained by copolymer.

IPC 8 full level

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CPC (source: EP KR US)

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