

Title (en)
BIBENZOATE COPOLYESTERS AND METHODS TO PRODUCE THEM

Title (de)
BISBENZOAT-COPOLYESTER UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
COPOLYESTERS DE BIBENZOATE ET LEURS PROCÉDÉS DE PRODUCTION

Publication
EP 3551607 A4 20200212 (EN)

Application
EP 16918454 A 20161007

Priority
US 2016056124 W 20161007

Abstract (en)
[origin: WO2018067181A1] Bibenzoate copolyesters are based on (4,4'-biphenyl dicarboxylic acid-co-3,4'-biphenyl dicarboxylic acid) as the diacid component, and on an alicyclic diol compound such as 1,4-cyclohexanedimethanol as a portion of the diol component. Copolyesters are based on 4,4'-biphenyl dicarboxylic acid, and/or 3,4'-biphenyl dicarboxylic acid as the diacid component, and may include a multifunctional acid. Copolymers may optionally have an essentially amorphous morphology, high glass transition temperature, high elongation at break, and/or high melting temperature. A method to make the copolyesters controls the characteristics of the copolyester selected from one or a combination of amorphous morphology or degree of crystallinity, T_g, T_m, tensile modulus, flexural modulus, elongation at break, and so on, by selecting the proportions of the 4,4'-biphenyl dicarboxylic acid or ester producing equivalent thereof, 3,4'-biphenyl dicarboxylic acid or ester producing equivalent thereof, and/or the proportion of the 1,4-cyclohexanedimethanol in the diol component.

IPC 8 full level
C08G 63/185 (2006.01); **C08G 63/199** (2006.01)

CPC (source: EP)
C08G 63/185 (2013.01); **C08G 63/199** (2013.01); **C08L 101/00** (2013.01); **C08G 65/332** (2013.01)

Citation (search report)

- [Y] US 5138022 A 19920811 - MANG MICHAEL N [US], et al
- [A] US 4914179 A 19900403 - MORRIS JOHN C [US], et al
- [Y] TINGTING CHEN ET AL: "Poly(ethylene glycol-co-1,4-cyclohexanedimethanol terephthalate) random copolymers: effect of copolymer composition and microstructure on the thermal properties and crystallization behavior", RSC ADVANCES, vol. 5, no. 74, 1 January 2015 (2015-01-01), pages 60570 - 60580, XP055648197, DOI: 10.1039/C5RA09252C
- See references of WO 2018067181A1

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