

Title (en)
HIGH-MOLECULAR WEIGHT POLYMERS AND METHODS OF MANUFACTURE

Title (de)
HOCHMOLEKULARE POLYMERISATE UND HERSTELLUNGSVERFAHREN

Title (fr)
POLYMERES A POIDS MOLECULAIRE ELEVE ET LEURS PROCEDES DE FABRICATION

Publication
EP 1444014 A4 20050330 (EN)

Application
EP 01270110 A 20011113

Priority
US 0143494 W 20011113

Abstract (en)
[origin: WO03041802A1] A composition comprises a solid-stated block copolymer of an aromatic polyester and a caprolactone, wherein the copolymer has been solid state polymerized such that intrinsic viscosity increases at least 20%, the caprolactone content decreases no more than 1.2% absolute and the transesterification increases no more than 3.5% absolute, and wherein the solid-stated copolymer has an intrinsic viscosity of at least 0.82. Particularly preferred chain extension reactions are performed at a temperature of less than 175°C, and even more preferably at less than 165°C. In further aspects of the inventive subject matter, yarns and methods of producing a fiber include contemplated solid-stated block copolymers.

IPC 1-7
A62B 35/00; **C08G 63/60**; **D03D 15/00**; **C08G 63/80**; **D01F 6/84**; **B60R 22/00**; **C08J 5/18**

IPC 8 full level
A62B 35/00 (2006.01); **B60R 22/00** (2006.01); **C08G 63/60** (2006.01); **C08G 63/80** (2006.01); **C08J 5/18** (2006.01); **D01F 6/84** (2006.01); **D03D 1/00** (2006.01); **D03D 15/00** (2006.01)

CPC (source: EP KR)
C08F 293/00 (2013.01 - KR); **C08G 63/60** (2013.01 - EP); **C08G 63/80** (2013.01 - EP); **C08J 5/18** (2013.01 - EP); **D03D 1/0005** (2013.01 - EP); **C08J 2367/00** (2013.01 - EP); **D10B 2331/041** (2013.01 - EP); **D10B 2331/042** (2013.01 - EP)

Citation (search report)

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- [A] DATABASE WPI Section Ch Week 198705, Derwent World Patents Index; Class A23, AN 1987-032233, XP002316244
- [A] DATABASE WPI Section Ch Week 199215, Derwent World Patents Index; Class A23, AN 1992-117922, XP002316245
- [A] DATABASE WPI Section Ch Week 198513, Derwent World Patents Index; Class A23, AN 1985-078330, XP002316246
- See references of WO 03041802A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

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WO 03041802 A1 20030522; BR 0117146 A 20041026; CA 2459296 A1 20030522; EP 1444014 A1 20040811; EP 1444014 A4 20050330; JP 2005509055 A 20050407; KR 20040054764 A 20040625; MX PA04004258 A 20040908

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US 0143494 W 20011113; BR 0117146 A 20011113; CA 2459296 A 20011113; EP 01270110 A 20011113; JP 2003543683 A 20011113; KR 20047007139 A 20011113; MX PA04004258 A 20011113