

Title (en)

Polyolefin fibres and polyolefin yarns and textile materials thereof

Title (de)

Polyolefinfasern und Polyolefingarne und daraus hergestellte textile Flächengebilde

Title (fr)

Fibres de polyoléfines et fils de polyoléfines et produits textiles les utilisant

Publication

EP 0878567 B1 20040929 (DE)

Application

EP 98107669 A 19980428

Priority

- DE 19720135 A 19970514
- DE 19722579 A 19970530

Abstract (en)

[origin: EP0878567A2] The claims cover polyolefin fibres and yarns with high strength and elongation at break produced by melt processing, especially fibres with capillary titres of 1-10 dtex, elongation at break > 130% and tensile strength NOTLESS 15 cN/tex that are not redrawn, and textile fabrics produced from them. They consist of polypropylene mixtures containing 0.05-10, preferably 0.2-3 wt.% modified propylene polymers (I) with melt indices of 0.1-50, preferably 1-40 g/10 minutes at 230 degrees C/2.16 kg and a ratio of intrinsic viscosity of (I) to the intrinsic viscosity of the unmodified polypropylene of the same weight average molecular weight (Mw) of 0.20-0.95. (I) are obtained by (a) treating propylene homopolymers and/or copolymers of propylene and ethylene and/or 4-18 carbon (C) alpha -olefins with polyfunctional ethylenically unsaturated monomers in the presence of ionising radiation and/or thermal free radical initiators; or (b) reacting functionalised polypropylene, preferably containing acid and/or acid anhydride groups, with polyfunctional compounds of opposite reactivity, preferably 2-16 C diamines and/or 2-16 C diols. Also claimed is a method of making these materials.

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D01F 6/06; D01F 6/46; D01F 1/10

IPC 8 full level

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CPC (source: EP US)

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Cited by

EP1213375A1; EP1260618A1; EP1213376A1; WO02095095A3; WO0246502A1; WO2006063905A1; WO9911678A3

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