

Title (en)  
High strength polyester yarn and method for its production

Title (de)  
Hochfestes Polyestergarn und Verfahren zu seiner Herstellung

Title (fr)  
Fil polyester à haute résistance et procédé pour sa fabrication

Publication  
**EP 0526740 B1 19980325 (DE)**

Application  
**EP 92111195 A 19920702**

Priority  
DE 4122324 A 19910705

Abstract (en)  
[origin: EP0526740A2] A polyester yarn having a novel property combination of high strength, high modulus and low heat shrinkage is described, which is to be produced by high-speed spinning, and a spinning yarn suitable for its production composed of a polyester raw material based on a modified polyethylene terephthalate which contains as modification components, relative to the total acid components, 0.5 - 5.0 mol % of radicals of aliphatic dicarboxylic acids having in total at least 5 C atoms and/or aromatic dicarboxylic acids whose carbonyl bonds are angled or whose aromatic rings carry modification-active substituents, and/or, relative to the total diol components, contains 0.5 to 5 mol % of alkane or cycloalkane diols having 3 to 10 C atoms, di- or tri-ethylene glycol or polyethylene glycol having a molecular weight of up to 4000, has a specific viscosity, measured in a solution of 1 g of the polyester in 100 ml of dichloroacetic acid at 25 DEG C of 0.8 - 1.7, and in that, when it is spun at a spinning take-off rate Va, the quotient Q of double refraction and crystallinity corresponds to the formula  $11.86 - 3.94 \cdot 10^{-3} \cdot \text{DOLLAR Va} + 4.57 \cdot 10^{-7} \cdot \text{DOLLAR (Va)}^2$  (III) <IMAGE>

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**D01F 6/84**

IPC 8 full level  
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CPC (source: EP)  
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