

Title (en)

METHOD FOR THE SPINNING AND WINDING OF POLYESTER FILAMENTS USING A SPINNING ADDITIVE, POLYESTER FILAMENTS OBTAINED BY THE SPINNING METHOD, DRAW TEXTURING OF THE POLYESTER FILAMENTS AND BULKED POLYESTER FILAMENTS OBTAINED BY DRAW TEXTURING

Title (de)

VERFAHREN ZUM SPINNEN UND AUFSPULEN VON POLYESTER-FILAMENTEN UNTER VERWENDUNG VON SPINNADDITIVEN, DURCH DAS SPINN-VERFAHREN ERHÄLTISCHE POLYESTER-FILAMENTE, STRECKTEXTURIERUNG DER POLYESTER-FILAMENTE SOWIE DURCH DIE STRECKTEXTURIERUNG ERHÄLTISCHE BAUSCHIGE POLYESTER-FILAMENTE

Title (fr)

PROCEDE POUR FILER ET ENROULER DES FILAMENTS DE POLYESTER EN UTILISANT DES ADDITIFS DE FILAGE, FILAMENTS DE POLYESTER OBTENUS PAR CE PROCEDE DE FILAGE, TEXTURATION PAR ETIRAGE DES FILAMENTS DE POLYESTER ET FILAMENTS DE POLYESTER GONFLANTS OBTENUS PAR CETTE TEXTURATION PAR ETIRAGE

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Abstract (en)

[origin: DE10151875A1] Production of preoriented and melt spun polyester filaments comprising 90 wt.% of polybutylene terephthalate (PBT) of the total polyester filament weight and/or polytrimethylene terephthalate (PTMT) involves setting the spin draft, cooling directly and bundling together at a gap of 500-2500 mm. Production and winding of preoriented and melt spun polyester filaments comprising at least 90 wt.% of polybutylene terephthalate (PBT) of the total polyester filament weight and/or polytrimethylene terephthalate (PTMT) and is preferably wholly of PTMT. The spin draft is set at 70-500. The filaments are cooled directly on leaving the spinneret for a length of 30-200 mm, to a temperature below the setting point, and bundled together at a gap of 500-2500 mm from the under side of the spinneret. The filament tension before and between the godet rollers is 0.05-0.20 cN/dtex. The filament winding speed is 2200-6000 m/min. The polyester contains a polymer additive to increase its stretch, mixed in at a rate of 0.05-2.5 wt.% of the total filament weight. Independent claims are included for: (1) preoriented polyester filaments which, after four weeks of storage, have a stretch to break of 90-165%, a boiling shrinkage of at least 30%, a normal uster of =1.1%, a double refraction of 0.030-0.058, a density of =1.35 g/cm³ and preferably =1.33 g/cm³, a variation coefficient of the shearing load and stretch to break of =4.5%; and (2) a bulked polyester filament, where the POY yarns are passed through a draw texturizing unit at a speed of at least 500 m/min. with a drafting ratio of at least 1:1.35 to give a bulked filament yarn with a shear strength of >=26 cN/tex and a stretch to break of >=30% or >=36%.

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