Title (en)

IMPROVING PHYSICAL AND MECHANICAL PROPERTIES OF FABRICS BY HYDROENTANGLING

Title (de)

VERBESSERTE PHYSIKALISCHE UND MECHANISCHE EIGENSCHAFTEN VON TEXTILEN FLÄCHENGEBILDEN DURCH WASSERSTRAHLVERFESTIGUNG

Title (fr)

AMELIORATION DES CARACTERISTIQUES PHYSIQUES ET MECANIQUES DE TISSUS PAR HYDROLIAGE

Publication

**EP 1694893 A4 20071128 (EN)**

Application

**EP 04814253 A 20041215**

Priority

- US 2004042047 W 20041215
- US 52949003 P 20031215

Abstract (en)

[origin: US2005125908A1] Methods for reducing the surface pilling tendency and improving abrasion resistance of a pillable fabric are disclosed. The methods include providing a pillable fabric including fibrils extending from the surfaces thereof, supporting the fabric, and exposing the fabric to a hydroentanglement process that imparts an energy in the range of at least about 4000 to 5000 KJoules/Kg of fabric using pressures of 200 bars or greater. The presence of fibrils on the fabric surface are reduced to an amount wherein the pilling production on the fabric is less than about 20% after 5,000 cycles of abrasion on a Martindale device according to ASTM D4970 testing standard and the fabric remaining mass is at least about 80% to 90% after 50,000 cycles of abrasion on a Martindale device according to ASTM D4966 testing standard.

IPC 8 full level

**D06M 11/56** (2006.01); **D04H 1/46** (2012.01); **D06C 29/00** (2006.01); **D06M 10/00** (2006.01)

IPC 8 main group level

**D04H** (2006.01)

CPC (source: EP US)

**D04H 1/492** (2013.01 - EP US); **D06C 29/00** (2013.01 - EP US)

Citation (search report)

- [A] US 5657520 A 19970819 - GREENWAY J MICHAEL [US], et al
- See references of WO 2005059215A2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**US 2005125908 A1 20050616**; EP 1694893 A2 20060830; EP 1694893 A4 20071128; WO 2005059215 A2 20050630; WO 2005059215 A3 20060427; WO 2005059215 A9 20051027

DOCDB simple family (application)

**US 1329904 A 20041215**; EP 04814253 A 20041215; US 2004042047 W 20041215