

Title (en)

Soil and stain resistant carpet fiber and process for producing the same

Title (de)

Schmutz- und fleckabweisende Teppichfasern und Verfahren zu ihrer Herstellung

Title (fr)

Fibres pour tapis résistants aux tâches et aux salinures et procédé pour leur fabrication

Publication

**EP 0579976 B1 19980527 (EN)**

Application

**EP 93110171 A 19930625**

Priority

US 91468092 A 19920715

Abstract (en)

[origin: EP0579976A1] A method for producing carpet yarn produces yarn having substantial soil biding, soil repelling and resistance to staining with acid dye characteristics. The yarn is made by forming at least one hollow trilobal fiber from a molten nylon polymer having an amine end group level below about 25 meq/kg, the fiber having a modification ratio of about 2 and a void volume of at least 3%; quenching the formed fiber sufficiently to solidify the molten nylon; immediately after quenching, at a yarn speed of at least 300 mpm, finishing the fiber with spin finish containing fluorochemical; fully drawing the finished fiber; texturing the finished yarn by a hot fluid texturing process; and subsequently, applying to the textured yarn a sulfonated stainblocker, the stainblocker being heated to at least 50 DEG C and applied while the fiber temperature is at least about 100 DEG C in the stainblocker application step. The yarn travels at a rate sufficient to permit fixation of the stainblocker while minimizing penetration of stainblocker into the yarn.

IPC 1-7

**D01F 6/60**; **D01D 5/24**; **D01D 5/253**; **D06M 15/41**; **D06M 15/277**; **D06M 13/213**

IPC 8 full level

**D01D 5/24** (2006.01); **D01D 5/253** (2006.01); **D01F 6/60** (2006.01); **D06M 13/213** (2006.01); **D06M 15/277** (2006.01); **D06M 15/41** (2006.01)

IPC 8 main group level

**D06M 17/00** (2006.01); **D06P 3/00** (2006.01)

CPC (source: EP)

**D01D 5/24** (2013.01); **D01D 5/253** (2013.01); **D01F 6/60** (2013.01); **D06M 7/00** (2013.01); **D06M 13/213** (2013.01); **D06M 15/277** (2013.01); **D06M 15/412** (2013.01); **D06M 2200/40** (2013.01)

Cited by

US5948480A; CN110273186A

Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

**EP 0579976 A1 19940126**; **EP 0579976 B1 19980527**; DE 69318767 D1 19980702; DE 69318767 T2 19981008; SI 9300383 A 19940331; SI 9300383 B 20011231

DOCDB simple family (application)

**EP 93110171 A 19930625**; DE 69318767 T 19930625; SI 9300383 A 19930715