

Title (en)

Cardable hydrophobic staple fiber with internal lubricant and method of making and using the same

Title (de)

Kardierbare hydrophobische Stapelfaser mit internem Weichmacher und Verfahren zu ihrer Herstellung und zu ihrer Verwendung

Title (fr)

Fibre discontinue cardable hydrophobique avec lubrifiant interne et son procédé et utilisation

Publication

**EP 0761846 A2 19970312 (EN)**

Application

**EP 96305779 A 19960806**

Priority

US 51235195 A 19950808

Abstract (en)

Hydrophobic polyolefin fibers are provided with an internal hydrophobic polysiloxane of the formula  $X-\text{Si}(\text{R}_{<1>})(\text{R}_{<2>})-\text{O}-\text{U}_z-\text{Y}$ , in which X, Y,  $\text{R}_{<1>}$ , and  $\text{R}_{<2>}$ , which may be the same or different, or substituted or unsubstituted independently of each other, are aliphatic groups having not more than about sixteen carbon atoms,  $\text{R}_{<1>}$  and  $\text{R}_{<2>}$  also being selected from among aryl groups, and z being a positive number sufficiently high that the polysiloxane is hydrophobic (z is generally at least 10). The invention also provides a novel polymer melt for spinning these hydrophobic fibers. The fibers can be cut into staple lengths and carded and bonded to form hydrophobic woven and nonwoven products suitable for use in hygiene devices such as diapers. Such devices are improved by these fibers, which, as spun, present a greater hydrophobicity than melt-spun polyolefin fibers lacking the internal siloxane lubricant; the improved hydrophobicity is evidenced by an advancing contact angle for the as-spun fibers of at least about 95 DEG .

IPC 1-7

**D01F 6/46**; **D01F 8/06**; **D04H 1/42**

IPC 8 full level

**A61F 5/44** (2006.01); **A61F 13/15** (2006.01); **A61F 13/49** (2006.01); **A61F 13/511** (2006.01); **C08L 23/02** (2006.01); **C08L 87/00** (2006.01); **D01F 6/46** (2006.01); **D01F 8/06** (2006.01); **D02G 3/04** (2006.01); **D04H 1/42** (2006.01)

CPC (source: EP US)

**D01F 6/46** (2013.01 - EP); **D01F 8/06** (2013.01 - EP); **D04H 1/4291** (2013.01 - EP); **D04H 1/435** (2013.01 - EP); **D04H 1/43828** (2020.05 - EP US); **D04H 1/43832** (2020.05 - EP US); **D04H 1/4383** (2020.05 - EP US)

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Designated contracting state (EPC)

DE DK FR GB IT

DOCDB simple family (publication)

**EP 0761846 A2 19970312**; **EP 0761846 A3 19971105**; **EP 0761846 B1 20040121**; DE 69631359 D1 20040226; DE 69631359 T2 20041209; DK 0761846 T3 20040524; JP H09170112 A 19970630; MX 9603248 A 19970329

DOCDB simple family (application)

**EP 96305779 A 19960806**; DE 69631359 T 19960806; DK 96305779 T 19960806; JP 22594896 A 19960808; MX 9603248 A 19960807