

Title (en)

Cut-resistant aramid fibres, yarns containing these fibres and their use

Title (de)

Schnittresistente Aramidfasern, Garne enthaltend diese Aramidfasern und dieser Verwendung

Title (fr)

Fibres d'aramide résistant aux coupures, fils contenant ces fibres et leur utilisation

Publication

EP 0790335 A1 19970820 (DE)

Application

EP 97101675 A 19970204

Priority

DE 19605511 A 19960215

Abstract (en)

Cut-resistant fibres, containing (A) a filler with a Mohs hardness of 3 or more and (B) a fibre-forming aromatic polyamide which is soluble in polar aprotic organic solvents and contains units of formulae -OC-Ar1-CO-NH-Ar2-NH- (I), -OC-Ar1-CO-NH-Ar3-NH- (II) and optionally -OC-Ar1-CO-NH-Ar3a (IIa), in which all Ar groups = mono- or poly-nuclear arylene with free valencies in the para- or meta- position or in corresponding parallel, coaxial or angled positions, and in which Ar2, Ar3 and optionally Ar3a may be different from one another in each case; the corresponding monomers being selected to give a polyamide which is soluble as above, preferably to give isotropic solutions. Also claimed is yarn containing these fibres.

Abstract (de)

Beschrieben werden schnittresistente Fasern enthaltend einen Füllstoff mit einer Härte nach Mohs von größer gleich 3 und als faserbildendes Material ausgewählte in polaren aprotischen organischen Lösungsmitteln lösliche aromatische Polyamide. Die beschriebenen Fasern lassen sich beispielsweise zur Herstellung von Schutzbekleidung einsetzen.

IPC 1-7

D01F 6/80; **D01F 1/10**

IPC 8 full level

D01F 1/10 (2006.01); **D01F 6/80** (2006.01)

CPC (source: EP US)

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Citation (applicant)

- JP S5598909 A 19800728 - NAITO TAKESHI
- JP H03130413 A 19910604 - TEIJIN LTD
- US 2328105 A 19430831 - STROBINO LOUIS J
- US 5020161 A 19910604 - LEWIS JR MILTON A [US], et al
- US 4004295 A 19770125 - BYRNES SR ROBERT M
- US 4384449 A 19830524 - BYRNES SR ROBERT M, et al
- EP 0458343 A1 19911127 - BETTCHER INDUSTRIES [US]
- US 4470251 A 19840911 - BETTCHER WILLIAM H [US]
- EP 0599231 A1 19940601 - HOECHST CELANESE CORP [US]
- DE 2556883 C2 19811126
- DE 3007063 A1 19800828 - TEIJIN LTD
- EP 0199090 A2 19861029 - HOECHST AG [DE]
- EP 0364891 A2 19900425 - HOECHST AG [DE]
- EP 0364892 A2 19900425 - HOECHST AG [DE] & EP 0364893 A2 19900425 - HOECHST AG [DE]
- EP 0424860 A2 19910502 - HOECHST AG [DE]
- EP 0662534 A1 19950712 - HOECHST AG [DE]

Citation (search report)

- [A] WO 9531593 A1 19951123 - HOECHST CELANESE CORP [US]
- [A] US 5296543 A 19940322 - KASOWSKI ROBERT V [US], et al
- [DA] EP 0599231 A1 19940601 - HOECHST CELANESE CORP [US]
- [PA] WO 9641042 A1 19961219 - HOECHST CELANESE CORP [US]

Cited by

US6080474A; WO9917626A1

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