

**EUROPEAN PATENT APPLICATION**

Application number: **89108861.9**

Int. Cl.<sup>5</sup>: **D01F 8/12, D01F 1/09**

Date of filing: **17.05.89**

Priority: **27.05.88 JP 130745/88**

Date of publication of application:  
**29.11.89 Bulletin 89/48**

Designated Contracting States:  
**DE GB**

Date of deferred publication of the search report:  
**31.10.90 Bulletin 90/44**

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**Conductive composite filament and process for producing the same.**

Provided by the invention is a highly oriented, undrawn, conductive, composite filament which is white or colorless and has antistatic properties durable over a long period when wears utilizing the fiber are actually put on and washed. The filament is a sheath-core composite filament comprising a sheath of a fiber-forming thermoplastic polymer (A) and a core of a composition (B) comprising a conductive material which comprises a conductive metal oxide(s) and a thermoplastic polyamide, having a core resistance of not more than  $9 \times 10^{10} \Omega/\text{cm} \cdot \text{filament}$ , and maintaining a critical elongation --- an elongation reached in the course of extending a composite filament at which the core resistance exceeds  $1 \times 10^{11} \Omega/\text{cm} \cdot \text{filament}$  at a D.C. voltage of 1 kV --- of at least 5% and a shrinkage in hot water at 100°C of

not higher than 20%. Such fiber can be obtained by conducting high orientation melt spinning at at least 2,500 m/min while selecting a polyamide as the core component to contain the white or colorless conductive material and having the composition previously dried to a moisture content of 100 to 1,200 ppm.



EP 89 10 8861

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	GB-A-2077182 (KANEBO SYNTHETIC FIBERS LTD) * page 1, lines 27 - 28 * * page 2, lines 1 - 5 * * page 2, line 37 * * page 7, lines 22 - 32 * * page 7, lines 63 - 65 * * page 8, line 65 - page 9, line 11; claims * D & JP-A-570067622 -----	1-5	D01F8/12 D01F1/09
P,A	EP-A-276756 (KANEBO LTD) * page 4, line 46 - page 5, line 6 * * page 6, line 17 * * page 6, lines 45 - 51; claims * -----	1-5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			D01F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29 AUGUST 1990	Examiner BLAS V.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	