Title (en)

Conductive composite filament and process for producing the same.

Title (de)

Leitfähiges zusammengesetztes Filament und Verfahren zur Herstellung desselben.

Title (fr)

Filament composé conducteur et procédé pour sa fabrication.

Publication

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Application

EP 89108861 A 19890517

Priority

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Abstract (en)

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 x 10<1><0> OMEGA /cm.filament, and maintaining a critical elongation --- an elongation reached in the course of extending a composite filament at which the core resistance exceeds 1 x 10<1><1> OMEGA /cm.filament at a D.C. voltage of 1 kV --- of at least 5% and a shrinkage in hot water at 100 DEG 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.

IPC 1-7

D01F 1/09; D01F 8/12

IPC 8 full level

D01F 1/09 (2006.01); **D01F 8/12** (2006.01)

CPC (source: EP)

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Cited by

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