

Title (en)

METHOD FOR THE PREPARATION OF HIGHLY FIRE-RETARDING, HEAT-RESISTING POLYIMIDE FIBRES

Publication

EP 0119185 B1 19890118 (DE)

Application

EP 84890036 A 19840301

Priority

AT 82083 A 19830309

Abstract (en)

[origin: CA1229209A] A method of producing non-flammable, hightemperature resistant polyimide fibers according to the dry-spinning technique from a solution in aprotic organic solvents. The fibers obtained are to have irregularly lobed or serrated cross-sections, a wool-like smooth hand and high brightness. The dry-spinning process is carried out in a spinning column, wherein a 20 to 40 % solution of the polyimide is spun from spinnerets having circular orifices, the orifice numbers ranging from 20 to 800 and the orifice diameters from 100 to 300 .mu.m. An extrusion speed of between 20 and 100 m/min, a take-up speed of between 100 and 800 m/min, an amount of spin gas between 40 and 100 m3/h under standard conditions and a spin gas temperature of between 200 and 350.degree.C are applied. The tows leaving the spinning column, which contain residual solvent from 5 to 25 % by weight - based on dry polymer - and have a single filament titer of between 3.5 and 35 dtex, are washed in hot water, then they are dried to a moisture content of less than 5 %, subsequently are drawn at high temperatures and, if desired, are crimped and cut into staple fibers.

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D01F 6/74; **D01D 5/04**

IPC 8 full level

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CPC (source: EP US)

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Cited by

US5716567A; EP0246634A3; EP0481953A3; CN111254505A; US5804290A; US5066760A; EP0371957A3; AT395188B; AT17296U1; WO8908161A1; WO9604414A1; WO2011000764A1; US8952122B2

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