

Title (en)
APPARATUS AND PROCESS FOR CONTINUOUSLY PLATING FIBER

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Application
EP 84107100 A 19840620

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• US 50743983 A 19830624
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Abstract (en)
[origin: EP0137912A1] A process and apparatus for continuous high voltage plating of fibers are disclosed. Metal-coated fibers comprising a core of a semi-metallic or non-metallic filament may be plated with a thin, uniform, firmly adherent electrically conductive layer of an electrodepositable metal, such as nickel or the like, in a continuous high voltage process by electrodeposition from a solution onto the core. Uniformity and production speed are improved if the surface of the fibers is pretreated to provide a core fiber substantially free of adsorbed organic compounds. Non-metallic filaments comprising non-conductive polymers, such as aramid or the like, may be plated in the continuous process by roughening and sensitizing the core fiber of non-conductive polymer, and chemically depositing thereon a conductive metallic interlayer, followed by high voltage electrodeposition. Metallic filaments, especially the high strength metal coated fibers produced by the process, may be treated by oxidizing and/or sizing to improve processability and properties of the metal-coated fibers when mixed into plastic materials and when used in the form of filaments, yarns or tows in knitting and weaving machines.

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