

Title (en)  
ACRYLONITRILE SWOLLEN YARN FOR CARBON FIBER, PRECURSOR FIBER BUNDLE, FLAME-PROOF FIBER BUNDLE, CARBON FIBER BUNDLE, AND PRODUCTION METHODS THEREOF

Title (de)  
ACRYLNITRIL-SCHWELLGARN FÜR KOHLENSTOFFASERN, VORLÄUFERFASERBÜNDEL, FLAMMENFESTES FASERBÜNDEL, KOHLENSTOFFFASERBÜNDEL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
FIL EN ACRYLONITRILE EXPANSÉ POUR UNE FIBRE DE CARBONE, FAISCEAU DE FIBRES DE PRÉCURSEUR, FAISCEAU DE FIBRES RÉSISTANT À LA FLAMME, FAISCEAU DE FIBRES DE CARBONE, ET PROCÉDÉS DE PRODUCTION DE CE FIL

Publication  
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Application  
**EP 10786211 A 20100610**

Priority  
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Abstract (en)  
[origin: EP2441865A1] Provided is a carbon fiber bundle for obtaining a fiber-reinforced plastic having high mechanical characteristics. An acrylonitrile swollen fiber for a carbon fiber having openings of 10 nm or more in width in the circumference direction of the swollen fiber at a ratio in the range of 0.3 openings/ $\mu\text{m}^2$  or more and 2 openings/ $\mu\text{m}^2$  or less on the surface of the swollen fiber, and the swollen fiber is not treated with a finishing oil agent. A precursor fiber obtained by treating the swollen fiber with a silicone-based finishing oil agent has a silicon content of 1700 ppm or more and 5000 ppm or less, and the silicon content is 50 ppm or more and 300 ppm or less after the finishing oil agent is washed away with methyl ethyl ketone by using a Soxhlet extraction apparatus for 8 hours. The fiber is preferably an acrylonitrile copolymer containing acrylonitrile in an amount of 96.0 mass % or more and 99.7 mass % or less and an unsaturated hydrocarbon having at least one carboxyl group or ester group in an amount of 0.3 mass % or more and 4.0 mass % or less.

IPC 8 full level  
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CPC (source: EP KR US)  
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