

Title (en)

Sewing yarn made of synthetic multifilaments as well as method to produce such a sewing yarn

Title (de)

Nähgarn aus synthetischen Multifilamenten sowie Verfahren zur Herstellung eines derartigen Nähgarnes

Title (fr)

Fil à coudre en multifilaments synthétiques ainsi qu'une méthode pour fabriquer un tel fil à coudre

Publication

EP 0919649 B1 20030312 (DE)

Application

EP 98122206 A 19981123

Priority

DE 19752698 A 19971128

Abstract (en)

[origin: EP0919649A2] The multifilament sewing thread is composed of polyamide and/or polyester filaments (4-7), where at least two Multifilament strands (2,3) are twisted together. The twisted thread is coated (12) with a polymer to make a sewing thread. The strands are twisted (9-11) together to give a range of 2-500 twists/m, but preferably within 250-350 twists/m. Each strand has a thickness of between 49-1300 dtex, and preferably in the range of 76-940 dtex. Each strand contains between 16-600 separate filaments, and preferably 24-400 separate filaments. The sewing thread has a tensile strength range of 35-69 cN/tex with a preferable range of 40-55 cN/tex. The polymer coating has a thickness of 1.0-0.0003 mm and preferably 0.5-0.05 mm. The coating is applied at a rate of 0.2-18.0 wt% of the finished thread and preferably 4-10 wt%. The coating is colored with at least one dye pigment. An Independent claim is included for a manufacturing process where the twisted and coated thread is passed through a heating stage. Preferred Features: The twisted strands are coated, to be dried and condensed. They are dried at a temp. of 80-170 degrees C and pref. 100-150 degrees C, in a dwell time of 0.1-10.0 sec. and pref. 3-8 sec. The coated and twisted thread is condensed at a temp. of 130-240 degrees C in a dwell time of 0.1-10.0 sec. and pref. 1-3 sec. The coating uses water and/or an organic solvent or solvent mixture, with the simplest application process. The coating contains a cross linking agent. The surface of the twisted thread is treated physically and/or chemically to roughen it, to give a bonding surface for the applied coating. The surface treatment is pref. in a low temp. plasma and/or corona process as described in DE4230634-A and DE4230632-A. For a chemical surface treatment, a swelling agent is used on the thread surface.

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