

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 A2 19990602 (DE)

Application

EP 98122206 A 19981123

Priority

DE 19752698 A 19971128

Abstract (en)

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.

Abstract (de)

Es wird ein Nähgarn aus synthetischen Multifilamenten, insbesondere aus Polyamid- und/oder Polyester multifilamenten beschrieben, wobei mindestens zwei Stränge (2,3) aus parallel zueinander ausgerichteten Multifilamenten (6,7) miteinander verwunden sind und die miteinander verwundenen Stränge mit einer polymeren Beschichtung (12) unter Ausbildung des Nähgarnes versehen sind. <IMAGE>

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