

Title (en)

The method of precision winding of textile yarn into packages by frequently changing the wind ratio within one winding cycle

Title (de)

Verfahren zur Präzisionswicklung von Textilgarn auf Spulen durch häufigen Wechsel des Wicklungsverhältnisses innerhalb eines Wicklungszyklus

Title (fr)

Procédé de bobinage de précision de fils textiles en bobines en modifiant fréquemment le rapport de bobinage au sein d'un cycle de bobinage

Publication

EP 1930273 A1 20080611 (EN)

Application

EP 07021674 A 20071108

Priority

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Abstract (en)

The method of precision winding of yarn into packages by frequently changing the wind ratio within one winding cycle solves the problem related to frictional force (F_r) which is generated in the odd layer (3) at unwinding of packages (1), by introducing a quite innovative technique of threads (20) winding on the tube (12) in odd winding-on layers (3) and even layers (4). To carry out the method according to this invention, it does not matter if the driver of thread (20) guides (2, 2') of the winder on which a package (1) is wound changes the direction of its rotation or not. If the driver of thread (20) guide (2) or (2'), i.e. the servomotor does not change the direction of rotation, it must be taken into consideration that the number of guides (2, 2') should be a multiple of the length of thread guides carriers, and the distance between them should match the length (L) of the package (1). The thread (20) can be wound on a cylindrical or conical tube (12), with or without flanges (14, 21) at back end (19) of the package (1). Odd layers (3) are wound equally from virtual point (b') to virtual point (d'), and even layers (4) are wound equally from virtual point (f') to virtual point (g'). Thus, the key characteristic of the method according to this invention is that there is no difference between the technique of odd layer (3) and the technique of even layer (4) winding-on within one winding cycle, regardless of whether the package (1) is wound with five cones (5, 6, 7, 8, 9) or (6, 7, 8, 9, 13) on cylindrical or conical tube (12), with flange (14) or without flange (14, 21) at the back end (19) of package (1), or with two cones (6, 8) and with disc-shaped flange (21) at its back end (19).

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Citation (search report)

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