

Title (en)  
Process and apparatus for spinning and crimping of a multifilament yarn

Title (de)  
Verfahren und Vorrichtung zum Spinnen und Kräuseln eines multifilen Fadens

Title (fr)  
Procédé et dispositif de filage et de frisage d'un fil multifilamentaire

Publication  
**EP 1146151 B1 20060719 (DE)**

Application  
**EP 01107822 A 20010406**

Priority  
DE 10017916 A 20000411

Abstract (en)  
[origin: EP1146151A2] In the production of texturized filaments, the bundle of melt spun thermoplastic filaments is divided into part-bundles before texturizing. The part-bundles are texturized separately, and then combined into a filament yarn. In the production of a melt-spun and texturized filament yarn, the part-bundles have an equal number of filaments. Each part-bundle is texturized under identical conditions. Each part-bundle passes through a texturizing jet, to be crammed into a plug. Each filament plug is drawn out separately into texturized part-bundles, to be combined into a yarn. The filament part-bundles are heated at the texturizing jets, and the filament plugs are cooled away from the jets. The part-bundles are processed between the cooling and the texturizing stages, and after texturizing before forming the yarn. The extruded melt-spun filament bundle is divided into two equal part-bundles during or after or before the initial cooling stage. The part-bundles are eddied together to form the filament yarn. An Independent claim is included for a filament melt spinning and texturizing assembly, where the extruded bundle (5) of melt-spun filaments is divided (6) into part-bundles (7.1,7.2) at the cooling shaft (4), before they reach the texturizing station (8). The texturizing station has two parallel texturizing units (9) to take the separate filament part-bundles. The texturized part-bundles are brought together (13) into a yarn (16) before winding (17) on a bobbin. Preferred Features: The filament bundle divider has guides (20.1,20.2) within the cooling shaft to form part-bundles of filaments, or they are between the cooling shaft and the texturizing station. The filament bundles can be divided by a jet assembly within the spinneret (1). The texturizing units have a guide channel (10.1,10.2) for each filament part-bundle, and a compression chamber (11.1,11.2) to form parallel filament plugs (12.1,12.2). A cooling drum can be after the texturizing jets, with a running track around the circumference for the texturized filaments drawn from each filament plug. The unit to combine the part-bundles into a yarn has an eddy chamber (14) to give an air stream through a yarn take-off channel (15).

IPC 8 full level  
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