

Title (en)

Method and apparatus for heat-setting drawn, crimped, synthetic thermoplastic filaments.

Title (de)

Verfahren und Vorrichtung zum thermischen Fixieren von gestreckten, gekräuselten Endlosfäden aus thermoplastischem Kunststoff.

Title (fr)

Procédé et appareil pour la fixation thermique de filaments synthétiques thermoplastiques étirés et frisés.

Publication

**EP 0083721 A2 19830720 (DE)**

Application

**EP 82110871 A 19821124**

Priority

DE 3200271 A 19820107

Abstract (en)

1. Method for the thermal fixing a stretched, crimped continuous filaments of thermoplastic materials by heating the filament bundle coming from the crimping device, lying in a compact package on a support permeable to gas, and moving continuously forwards, to a temperature of 20 to 70 degrees C below the crystallite melting point of the plastics material with the aid of a fluid medium flowing through the filament bundle at right angles to the support permeable to gas, followed by cooling, characterized in that the thermal fixing of the filament bundle continuously passing out of the crimping device is effected, without changing its direction of movement, by passing through an elongate, laterally bounded fixing zone which at the bottom is permeable to gas and the width of which amounts to from 1.2 to 3 times the width of the crimped filament bundle downstream of the crimping device, and that before entering the fixing zone the crimped filament bundle is periodically placed under pressure both in the direction of movement and at the same time also at right angles thereto, and then relieved of pressure, in such a manner that after the relaxation of the pressure its width directly before entering the fixing zone practically corresponds to the inside width of the fixing zone.

Abstract (de)

Gestreckte und gekräuselte Endlosfäden aus thermoplastischen Kunststoffen werden bei Temperaturen von 20 bis 70°C unterhalb des Kristallschmelzpunktes mit Hilfe eines senkrecht zur Bewegungsrichtung durchströmenden fluiden Mediums fixiert, wobei diese Fixierung ohne Richtungsänderung in einen in der lichten Weite der Breite des Fadenkabels entsprechenden langgestreckten Fixierkanal vorgenommen, und das Fadenkabel vor Eintritt in den Fixierkanal sowohl in Bewegungsrichtung als auch senkrecht dazu periodisch unter Druck gesetzt und damit verbreitert und in der Lage vergleichmäßig wird.

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