

Title (en)

Method for thermally processing moving yarns and apparatus for carrying out this process

Title (de)

Verfahren zur Wärmebehandlung von sich bewegenden Garnen und Vorrichtung zur Durchführung dieser Behandlung

Title (fr)

Méthode pour le traitement thermique de fils en mouvement et dispositif pour effectuer ce traitement

Publication

EP 0579082 B1 19980826 (DE)

Application

EP 93110711 A 19930705

Priority

DE 4222721 A 19920710

Abstract (en)

[origin: EP0579082A1] There is described a particularly gentle and fast process for heating yarns passing contactlessly through a heating apparatus. The process comprises the measures of: i) preheating a heat transfer gas to a temperature which is above the desired yarn temperature, and ii) feeding the preheated heat transfer gas into the yarn duct so that it impinges essentially perpendicularly on the moving yarn along a length such that the yarn heats up to the desired elevated temperature within the heating apparatus, the length of the impingement zone being such that continuous removal of the boundary layer by the impinging heat transfer gas ensures that the yarn comes into direct contact with the heat transfer gas and thus heats up very rapidly. The process of the invention is suitable in particular for heating air jet textured yarns and for setting two-component loop sewing thread yarns. The invention further relates to an adapted apparatus for carrying out the process. Said apparatus comprises a preheating means (2) for the heat transfer gas (12), a duct (3) for the contactlessly moving yarn in the form of a tube (7) drilled with a plurality of holes (6) for the passage of the heat transfer gas (12), at least one feed line (4) for the hot heat transfer gas (12) having at least one outlet (5) into a distributor chamber (13) from where the hot heat transfer gas (12) flows into the duct (3), the holes (6) in the tube (7) being such that the heat transfer gas (12) can impinge radially from the outside on the yarn moving contactlessly in the duct (3).

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CPC (source: EP US)

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Cited by

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