

Title (en)

Extrusion process and an extrusion die with a central air jet.

Title (de)

Extrudierverfahren und Extrudierdüse mit zentralem Luftstrom.

Title (fr)

Procédé d'extrusion et filière d'extrusion ayant un jet d'air central.

Publication

EP 0173333 A2 19860305 (EN)

Application

EP 85110883 A 19850829

Priority

US 64566884 A 19840830

Abstract (en)

A thermoplastic material extrusion mechanism is provided which includes a die head having a centrally disposed high velocity gas delivery means adapted to continuously emit a jet of a gas having shear layers, at least one chamber for the thermoplastic material, thermoplastic material delivery means arranged at least partially surrounding the centrally disposed high velocity gas delivery means for directing extruded thermoplastic material emitted from the thermoplastic material delivery means toward the gas jet, causing the extruded thermoplastic material to be introduced into the shear layers of the gas jet, and a thermoplastic material conduit which communicates the at least one chamber with each of the thermoplastic material extrusion openings. A method of producing fibers of a thermoplastic material is also provided which comprises the steps of (a) forming a high velocity gas jet having shear layers, (b) extruding at least one stream of a molten thermoplastic material from at least one thermoplastic material delivery means arranged adjacent and at least partly surrounding the high velocity gas jet, and (c) merging the at least one thermoplastic material stream with the shear layers of the high velocity gas jet to attenuate the thermoplastic material into fibers, forming thereby fiber streams of the thermoplastic material.

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IPC 8 full level

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CPC (source: EP KR)

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Cited by

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