

Title (en)

Thermoplastic last stage blade and method for manufacturing

Title (de)

Thermoplastenendstufenschaufel und Verfahren zur Herstellung

Title (fr)

Aube thermoplastique de dernier étage et procédé de fabrication

Publication

**EP 2287447 A2 20110223 (DE)**

Application

**EP 10169024 A 20100709**

Priority

DE 102009036018 A 20090804

Abstract (en)

The blade (100) has a damping zone (101) including a damping layer (103) with a fiber matrix system (109), where the system includes a thermoplastic matrix with reinforcing fibers e.g. carbon fibers. The fibers are embedded in the matrix at an angle between 1 degree and 90 degrees to each other. The zone includes fiber layers (104, 105), where the fiber layers together with the damping layer form laminar structures (106, 107). A blade region (102) comprises a set of fiber layers. The fibers include a hybrid yarn, where the yarn comprises thermoplastic material and carbon fiber material. An independent claim is also included for a method for manufacturing a damping zone of a turbine blade.

Abstract (de)

Die vorliegende Erfindung beschreibt eine Turbinenschaufel (100). Die Turbinenschaufel (100) weist einen Dämpfungsbereich (101) mit einer Dämpfungslage (103) auf, wobei die Dämpfungslage (103) ein Faser-Matrix-System (200) aufweist. Das Faser-Matrix-System (200) weist eine thermoplastische Matrix (201) auf, in welcher thermoplastischen Matrix (201) Verstärkungsfasern (202) eingebettet sind.

IPC 8 full level

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CPC (source: EP US)

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