

Title (en)

PROCESS FOR IMPARTING PERMANENCE TO A SHAPED NON THERMOPLASTIC FIBROUS MATERIAL

Title (de)

DAUERHAFTE VERFORMUNG FÜR BEREITS VERFORMTE, NICHT-THERMOPLASTISCHE FASERMATERIALIEN

Title (fr)

PROCEDE POUR CONFERER LA PERMANENCE DE FORME A UN MATERIAU FIBREUX NON THERMOPLASTIQUE FA ONNE

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Application

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Abstract (en)

[origin: WO03050345A2] The invention relates to a process to impart permanence to a shaped non thermoplastic fibrous material comprising submitting, under low tension, the shaped non thermoplastic fibrous material to a constant and uniformly distributed electromagnetic field generated by a single mode Transverse Magnetic 010 mode cylindrical resonant cavity microwave reactor,- the uniformly distributed electromagnetic field being operated at frequencies of from 5 MHz to 500 GHz,- the shaped non thermoplastic fibrous material being processed through the uniformly distributed electromagnetic field at a rate of from 0.01 to 1200 m/min,- the rate of the increase in temperature of the shaped non thermoplastic fibrous material being less than 300 DEG C/s,- the shaped non thermoplastic fibrous material comprising at least one polymeric structure comprising amino groups and at least 0.05 weight % of an aqueous composition. The invention also relates to permanently shaped non thermoplastic fibrous material obtained by this process, in particular to permanently twisted fibers, and to a structure comprising this shaped non thermoplastic fibrous material.

IPC 8 full level

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