Title (en)

PROCESS FOR DENSIFYING LOW DENSITY WOODS

Publication

EP 0197674 B1 19900523 (EN)

Application

EP 86301862 A 19860314

Priority

CA 476650 A 19850315

Abstract (en)

[origin: EP0197674A1] Low quality, low density woods are densified to form wood products having the characteristics of high quality natural hardwoods. A green solid wood member having a high moisture content is impregnated with anhydrous ammonia to plasticize the wood into a sponge-like form saturated with water and ammonia. This plasticized wood member is placed between press plates of a cyclic press and, while maintaining the temperature of the wood below 100 DEG C, it is subjected to a plurality of low pressure compression cycles each of about 1/2 to 1 minute duration with the wood being compressed to a predetermined thickness of up to 50% less than its original thickness. It is held at the reduced thickness for a short time and released during each cycle, whereby water and ammonia are squeezed out of the wood down to a moisture content of less than about 30%. The damp wood member of reduced thickness thus obtained is then dried to obtain a kiln dried, densified solid wood product. This method may be used to densify wood planks, pre-glued laminates and thin veneers. For veneers, a simpler pressing system and higher temperatures may be used.

IPC 1-7

B27K 5/00; B27K 5/06; B27M 1/02

IPC 8 full level

B27K 5/00 (2006.01); **B27K 5/06** (2006.01); **B27M 1/02** (2006.01)

CPC (source: EP)

B27K 1/00 (2013.01); **B27K 3/20** (2013.01); **B27K 5/06** (2013.01); **B27M 1/02** (2013.01)

Cited by

EP0623433A1; CZ304024B6; FR2658750A1; JPWO2018003935A1; FR2796586A1; WO9319910A1; WO2018003935A1; WO9319911A1; WO2011136728A1

Designated contracting state (EPC)

AT DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0197674 A1 19861015; **EP 0197674 B1 19900523**; AT E52958 T1 19900615; CA 1236255 A 19880510; DE 3671403 D1 19900628

DOCDB simple family (application)

EP 86301862 A 19860314; AT 86301862 T 19860314; CA 476650 A 19850315; DE 3671403 T 19860314