

CPC**COOPERATIVE PATENT CLASSIFICATION****B27K**

PROCESSES, APPARATUS OR SELECTION OF SUBSTANCES FOR IMPREGNATING, STAINING, DYEING, BLEACHING OF WOOD OR SIMILAR MATERIALS, OR TREATING OF WOOD OR SIMILAR MATERIALS WITH PERMEANT LIQUIDS, NOT OTHERWISE PROVIDED FOR ([applying liquids or other fluent materials to surfaces in general B05; coating wood or similar material B44D](#)); **CHEMICAL OR PHYSICAL TREATMENT OF CORK, CANE, REED, STRAW OR SIMILAR MATERIALS**

B27K 1/00**Damping wood**

B27K 1/02

. Apparatus

B27K 3/00**Impregnating wood**, {e.g. impregnation pretreatment, for example puncturing; Wood impregnation aids not directly involved in the impregnation process}{[dyeing, staining B27K 5/00](#)}

B27K 3/002

. { [employing compositions comprising micro-organisms](#)}

B27K 3/005

. { [employing compositions comprising microparticles](#)}

B27K 3/007

. { [employing compositions comprising nanoparticles](#)}

B27K 3/02

. Processes; Apparatus

B27K 3/0207

.. { [Pretreatment of wood before impregnation](#)}

B27K 3/0214

... { [Drying \(drying in general F26B\)](#)}

B27K 3/0221

... { [Pore opening \(B27K 3/0214 takes precedence\)](#)}

B27K 3/0228

.. {[Spraying apparatus, e.g. tunnels](#)}

B27K 3/0235

.. {[Stationary devices on or in legs or poles](#)}

B27K 3/0242

.. { [using melt impregnation](#)}

B27K 3/025

.. { [Controlling the process](#)}

B27K 3/0257

.. { [using rods or tablets, or ampoules, e.g. inserted in pre-drilled cavities](#)}

B27K 3/0264

.. { [using staples or nails](#)}

B27K 3/0271

.. { [Vapour phase impregnation](#)}

B27K 3/0278

.. { [involving an additional treatment during or after impregnation](#)}

B27K 3/0285

... { [for improving the penetration of the impregnating fluid](#)}

B27K 3/0292

... { [for improving fixation \(B27K 3/0285 takes precedence\)](#)}

B27K 3/04

.. [Impregnating in open tanks](#)

B27K 3/06

.. [Sap stream methods](#)

B27K 3/08

.. [Impregnating by pressure, {e.g. vacuum impregnation}](#)

- B27K 3/083 . . . { along the fibers, i.e. longitudinal impregnation}
- B27K 3/086 . . . { using supercritical or high pressure fluids}
- B27K 3/10 . . . Apparatus
- B27K 3/105 {Injection apparatus}
- B27K 3/12 . . Impregnating by coating the surface of the wood with an impregnating paste
- B27K 3/14 . . Bandage methods
- B27K 3/15 . . Impregnating involving polymerisation { including use of polymer-containing impregnating agents (macromolecular compounds derived from lignocellulosic materials C08H; compositions of lignin-containing materials [C08L 97/02](#))}

NOTE

1. When classifying in group [B27K 3/15](#), classification is additionally made in the groups of subclass M08L for defining the chemical polymeric structure
2. In groups [B27K 3/16](#) to [B27K 3/50](#), in the absence of an indication to the contrary, impregnating agents are classified in the last appropriate place

- B27K 3/153 . . . { Without in-situ polymerisation, condensation, or cross-linking reactions}
- B27K 3/156 . . . { Combined with grafting onto wood fibres}
- B27K 3/16 . . Inorganic impregnating agents
 - B27K 3/163 . . { Compounds of boron}
 - B27K 3/166 . . { Compounds of phosphorus}
 - B27K 3/18 . . Compounds of alkaline earth metals
 - B27K 3/20 . . Compounds of alkali metals or ammonium
 - B27K 3/22 . . Compounds of zinc or copper
 - B27K 3/24 . . Compounds of mercury
 - B27K 3/26 . . Compounds of iron, aluminium, or chromium
 - B27K 3/28 . . Compounds of arsenic or antimony
 - B27K 3/30 . . Compounds of fluorine
 - B27K 3/32 . . Mixtures of different inorganic impregnating agents
- B27K 3/34 . . Organic impregnating agents {(polymers [B27K 3/15](#))}
- B27K 3/343 . . {Heterocyclic compounds}
- B27K 3/346 . . { Grafting onto wood fibres ([B27K 3/156](#) takes precedence; macromolecular compounds derived from lignocellulosic materials C08H)}
- B27K 3/36 . . Aliphatic compounds
 - B27K 3/38 . . Aromatic compounds {([B27K 3/343](#) takes precedence)}
 - B27K 3/40 halogenated
 - B27K 3/42 nitrated, or nitrated and halogenated
 - B27K 3/44 . . Tar; Mineral oil
 - B27K 3/46 Coal tar
 - B27K 3/48 Mineral oil
 - B27K 3/50 . . Mixtures of different organic impregnating agents
- B27K 3/52 . . Impregnating agents containing mixtures of inorganic and organic compounds

- B27K 5/00** **Treating of wood not provided for in groups [B27K 1/00](#), [B27K 3/00](#)**
- B27K 5/0005 . { Cryogenic treatment}
- B27K 5/001 . { Heating}
- B27K 5/0015 . { by electric means}
- B27K 5/002 .. { Electric discharges, plasma}
- B27K 5/0025 . { by magnetic fields}
- B27K 5/003 . { by using electromagnetic radiation or mechanical waves (infra-red heating of wood [B27K 5/001](#))}
- B27K 5/0035 .. { Electron beam-radiation}
- B27K 5/004 .. { Gamma-radiation}
- B27K 5/0045 .. { X-rays}
- B27K 5/005 .. { Laser-light}
- B27K 5/0055 .. { Radio-waves, e.g. microwaves}
- B27K 5/006 .. { Vibrations}
- B27K 5/0065 .. { Ultrasonic treatment}
- B27K 5/007 . { using pressure ([B27K 3/08](#) takes precedence)}
- B27K 5/0075 .. { Vacuum}
- B27K 5/008 .. { Supercritical or high pressure fluids}
- B27K 5/0085 . { Thermal treatments, i.e. involving chemical modification of wood at temperatures well over 100°C}
- B27K 5/009 .. { using a well-defined temperature schedule}
- B27K 5/0095 . { by employing wrappers}
- B27K 5/02 . Staining or dyeing wood {(wood staining compositions [C09D 15/00](#)); Bleaching wood (bleaching wood pulp [D21C 9/10](#))}
- B27K 5/04 . Combined bleaching or impregnating and drying of wood
- B27K 5/06 . Softening or hardening of wood
- B27K 5/065 .. { Hardening}
- B27K 7/00** **Chemical or physical treatment of cork (mechanical working of cork [B27J 5/00](#))**
- B27K 9/00** **Chemical or physical treatment of reed, straw, or similar material (mechanical working of cane or the like [B27J 1/00](#))**
- B27K 9/002 . { Cane, bamboo}

B27K 9/005 . { Reed}

B27K 9/007 . { Straw}

B27K 2200/00 **Wooden materials to be treated**

B27K 2200/10 . Articles made of particles or fibres consisting of wood or other lignocellulosic material
([wood composite materials made of particles or fibres B27N](#))

B27K 2200/15 . Pretreated particles or fibres

B27K 2200/30 . Multilayer articles comprising wood ([multilayered products B32B](#))

B27K 2240/00 **Purpose of the treatment**

B27K 2240/10 . Extraction of components naturally occurring in wood, cork, straw, cane or reed
([solvent extraction B01D 11/00](#))

B27K 2240/15 . Decontamination of previously treated wood ([decontamination in general A62D 3/00](#))

B27K 2240/20 . Removing fungi, molds or insects ([biocidal compositions A01N](#); [sterilization or disinfection of wood A61L](#))

B27K 2240/30 . Fireproofing ([fireproofing materials in general C09K 21/00](#))

B27K 2240/50 . Ageing

B27K 2240/60 . Improving the heat-storage capacity

B27K 2240/70 . Hydrophobation treatment

B27K 2240/90 . UV-protection