

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