

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