

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](#))}

NOTES

1. When classifying in group [B27K 3/15](#), classification is additionally made in the groups of subclass [C08L](#) 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	<ul style="list-style-type: none"> • {by electric means}
B27K 5/002	<ul style="list-style-type: none"> • • {Electric discharges, plasma}
B27K 5/0025	<ul style="list-style-type: none"> • {by magnetic fields}
B27K 5/003	<ul style="list-style-type: none"> • {by using electromagnetic radiation or mechanical waves (infra-red heating of wood B27K 5/001)}
B27K 5/0035	<ul style="list-style-type: none"> • • {Electron beam-radiation}
B27K 5/004	<ul style="list-style-type: none"> • • {Gamma-radiation}
B27K 5/0045	<ul style="list-style-type: none"> • • {X-rays}
B27K 5/005	<ul style="list-style-type: none"> • • {Laser-light}
B27K 5/0055	<ul style="list-style-type: none"> • • {Radio-waves, e.g. microwaves}
B27K 5/006	<ul style="list-style-type: none"> • • {Vibrations}
B27K 5/0065	<ul style="list-style-type: none"> • • {Ultrasonic treatment}
B27K 5/007	<ul style="list-style-type: none"> • {using pressure (B27K 3/08 takes precedence)}
B27K 5/0075	<ul style="list-style-type: none"> • • {Vacuum}
B27K 5/008	<ul style="list-style-type: none"> • • {Supercritical or high pressure fluids}
B27K 5/0085	<ul style="list-style-type: none"> • {Thermal treatments, i.e. involving chemical modification of wood at temperatures well over 100°C}
B27K 5/009	<ul style="list-style-type: none"> • • {using a well-defined temperature schedule}
B27K 5/0095	<ul style="list-style-type: none"> • {by employing wrappers}
B27K 5/02	<ul style="list-style-type: none"> • Staining or dyeing wood {(wood staining compositions C09D 15/00)}; Bleaching wood (bleaching wood pulp D21C 9/10)
B27K 5/04	<ul style="list-style-type: none"> • Combined bleaching or impregnating and drying of wood
B27K 5/06	<ul style="list-style-type: none"> • Softening or hardening of wood
B27K 5/065	<ul style="list-style-type: none"> • • {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	<ul style="list-style-type: none"> • {Cane, bamboo}
B27K 9/005	<ul style="list-style-type: none"> • {Reed}
B27K 9/007	<ul style="list-style-type: none"> • {Straw}
B27K 2200/00	Wooden materials to be treated
B27K 2200/10	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Pretreated particles or fibres
B27K 2200/30	<ul style="list-style-type: none"> • Multilayer articles comprising wood (multilayered products B32B)
B27K 2240/00	Purpose of the treatment
B27K 2240/10	<ul style="list-style-type: none"> • Extraction of components naturally occurring in wood, cork, straw, cane or reed (solvent extraction B01D 11/00)
B27K 2240/15	<ul style="list-style-type: none"> • 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