CPC  COOPERATIVE PATENT CLASSIFICATION

B  PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SHAPING

B27  WORKING OR PRESERVING WOOD OR SIMILAR MATERIAL; NAILING OR STAPLING MACHINES IN GENERAL

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

WARNING
In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00  Damping wood
1/02  . Impregnating wood, [e.g. impregnation pretreatment, for example puncturing; Wood impregnation aids not directly involved in the impregnation process] (dyeing, staining B27K 5/00)

NOTE
In groups B27K 3/16 - B27K 3/50, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, impregnating agents are classified in the last appropriate place. [This Note corresponds to IPC Note (1) relating to B27K 3/16 - B27K 3/34.]

3/002  . [employing compositions comprising microorganisms]
3/005  . [employing compositions comprising microparticles]
3/007  . [employing compositions comprising nanoparticles]
3/02  . Processes; Apparatus
3/020  . . [Apparatus]
3/021  . . . [Pore opening (B27K 3/0214 takes precedence)]
3/022  . . . [Spraying apparatus, e.g. tunnels]
3/0235 . . . [Stationary devices on or in legs or poles]
3/0242 . . . [using melt impregnation]
3/025  . . . [Controlling the process]
3/0257 . . . [using rods or tablets, or ampoules, e.g. inserted in pre-drilled cavities]
3/0264 . . . [using staples or nails]
3/0271 . . . [Vapour phase impregnation]
3/0278 . . . [involving an additional treatment during or after impregnation]
3/0285 . . . [for improving the penetration of the impregnating fluid]
3/0292 . . . [for improving fixation (B27K 3/0285 takes precedence)]
3/04  . Impregnating in open tanks
3/06  . . Sap stream methods
3/08  . . Impregnating by pressure, [e.g. vacuum impregnation]
3/086 . . . [using supercritical or high pressure fluids]
3/10  . . . Apparatus
3/105 . . . . [Injection apparatus]
3/12  . . . Impregnating by coating the surface of the wood with an impregnating paste
3/14  . . Bandage methods
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
When classifying in group B27K 3/15, classification is additionally made in the groups of subclass C08L for defining the chemical polymeric structure

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

Treating of wood not provided for in groups B27K 1/00, B27K 3/00

Cryogenic treatment
(Heating)
(by electric means)
(Electric discharges, plasma)
(by magnetic fields)
(by using electromagnetic radiation or mechanical waves (infra-red heating of wood B27K 5/001)}
(Electron beam-radiation)
(Gamma-radiation)
(X-rays)
(Laser-light)
(Radio-waves, e.g. microwaves)
(Vibrations)
(Ultrasonic treatment)
(using pressure (B27K 3/08 takes precedence))
(Vacuum)
(Supercritical or high pressure fluids)
(Thermal treatments, i.e. involving chemical modification of wood at temperatures well over 100°C)
(using a well-defined temperature schedule)
(by employing wrappers)
Staining or dyeing wood (wood staining compositions C09D 15/00); Bleaching wood (bleaching wood pulp D21C 9/10)
Combined bleaching or impregnating and drying of wood
Softening or hardening of wood

Chemical or physical treatment of cork (mechanical working of cork B27J 5/00)
Chemical or physical treatment of reed, straw, or similar material (mechanical working of cane or the like B27J 1/00)

Wooden materials to be treated
Articles made of particles or fibres consisting of wood or other lignocellulosic material (wood composite materials made of particles or fibres B27N)
Pretreated particles or fibres
Multilayer articles comprising wood (multilayered products B32R)

Purpose of the treatment
Extraction of components naturally occurring in wood, cork, straw, cane or reed (solvent extraction B01D 11/00)
Decontamination of previously treated wood (decontamination in general A62D 3/00)
Removing fungi, molds or insects (biocidal compositions A01N; sterilization or disinfection of wood A61L)
Fireproofing (fireproofing materials in general C09K 21/00)
Ageing
Improving the heat-storage capacity
Hydrophobation treatment
UV-protection

Chemical or physical treatment of cork (mechanical working of cork B27J 5/00)
Chemical or physical treatment of reed, straw, or similar material (mechanical working of cane or the like B27J 1/00)