#### B27K

## **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 <u>B05</u>; coating wood or similar material <u>B44D</u>); 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.

<b>1/00</b> 1/02	Damping wood . Apparatus	3/0285 3/0292	<ul> <li>. {for improving the penetration of the impregnating fluid}</li> <li>. {for improving fixation (<u>B27K 3/0285</u> takes</li> </ul>
3/00	Impregnating wood, {e.g. impregnation pretreatment, for example puncturing; Wood impregnation aids not directly involved in the impregnation process}(dyeing, staining <u>B27K 5/00</u> ) <u>NOTE</u>	3/04 3/06 3/08	<ul> <li>precedence)}</li> <li>Impregnating in open tanks</li> <li>Sap stream methods</li> <li>Impregnating by pressure {, e.g. vacuum impregnation}</li> </ul>
	In groups <u>B27K 3/16</u> - <u>B27K 3/50</u> , 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 <u>B27K 3/16</u> - <u>B27K 3/34</u> .}	3/083 3/086 3/10 3/105 3/12	<ul> <li>. {along the fibers, i.e. longitudinal impregnation}</li> <li>. {using supercritical or high pressure fluids}</li> <li>. Apparatus</li> <li>. {Injection apparatus}</li> <li>. Impregnating by coating the surface of the wood</li> </ul>
3/002	<ul> <li>{employing compositions comprising microorganisms}</li> </ul>	3/14	with an impregnating paste <ul> <li>Bandage methods</li> </ul>
3/005	<ul> <li>{employing compositions comprising microparticles}</li> </ul>	3/15	Impregnating involving polymerisation     {including use of polymer-containing     impregnating agents (macromolecular compounds
3/007 3/02	<ul><li> {employing compositions comprising nanoparticles}</li><li> Processes; Apparatus</li></ul>		derived from lignocellulosic materials <u>C08H</u> ; compositions of lignin-containing materials <u>C08L 97/02</u> )}
3/0207 3/0214	<ul> <li>. {Pretreatment of wood before impregnation}</li> <li>. {Drying (drying in general <u>F26B</u>)}</li> </ul>		NOTE
3/0221	• • {Pore opening ( <u>B27K 3/0214</u> takes precedence)}		When classifying in group <u>B27K 3/15</u> , classification is additionally made in the
3/0228 3/0235	<ul><li> {Spraying apparatus, e.g. tunnels}</li><li> {Stationary devices on or in legs or poles}</li></ul>		groups of subclass <u>C08L</u> for defining the chemical polymeric structure
3/0242 3/025	<ul><li> {using melt impregnation}</li><li> {Controlling the process}</li></ul>	3/153	• • {Without in-situ polymerisation, condensation, or cross-linking reactions}
3/0257	• {using rods or tablets, or ampoules, e.g. inserted in pre-drilled cavities}	3/156 3/16	<ul><li> {Combined with grafting onto wood fibres}</li><li>. Inorganic impregnating agents</li></ul>
3/0264 3/0271 3/0278	<ul> <li>{using staples or nails}</li> <li>{Vapour phase impregnation}</li> <li>{involving an additional treatment during or after impregnation}</li> </ul>	3/163 3/166 3/18 3/20	<ul> <li>. {Compounds of boron}</li> <li>. {Compounds of phosphorus}</li> <li>. Compounds of alkaline earth metals</li> <li>. Compounds of alkali metals or ammonium</li> </ul>
		3/20	• • Compounds of arkan metals of animolifulli

#### B27K

3/22	• • Compounds of zinc or copper
3/24	Compounds of mercury
3/26	• • Compounds of iron, aluminium, or chromium
3/28	• Compounds of arsenic or antimony
3/30	Compounds of fluorine
3/32	. Mixtures of different inorganic impregnating
	agents
3/34	• Organic impregnating agents { (polymers
	<u>B27K 3/15</u> )}
3/343	• • {Heterocyclic compounds}
3/346	• • {Grafting onto wood fibres ( <u>B27K 3/156</u> takes
	precedence; macromolecular compounds derived
	from lignocellulosic materials <u>C08H</u> )}
3/36	Aliphatic compounds
3/38	• • Aromatic compounds {( <u>B27K 3/343</u> takes
	precedence)}
3/40	halogenated
3/42	nitrated, or nitrated and halogenated
3/44	• • Tar; Mineral oil
3/46	Coal tar
3/48	Mineral oil
3/50	Mixtures of different organic impregnating agents
3/52	. Impregnating agents containing mixtures of
	inorganic and organic compounds
5/00	Treating of wood not provided for in groups
2,00	<u>B27K 1/00, B27K 3/00</u>
5/0005	• {Cryogenic treatment}
5/001	• {Heating}
5/0015	• {by electric means}
5/002	• {Electric discharges, plasma}
5/0025	• {by magnetic fields}
5/003	• {by using electromagnetic radiation or mechanical
	waves (infrared heating of wood <u>B27K 5/001</u> )}
5/0035	• {Electron beam-radiation}
5/004	• • {Gamma-radiation}
5/0045	• • {X-rays}
5/005	• {Laser-light}
5/0055	• {Radio-waves, e.g. microwaves}
5/006	• • {Vibrations}
5/0065	• • {Ultrasonic treatment}
5/007	• {using pressure ( $\underline{B27K 3/08}$ takes precedence)}
5/0075	• {Vacuum}
5/008	• {Supercritical or high pressure fluids}
5/0085	• {Thermal treatments, i.e. involving chemical
	modification of wood at temperatures well over
	100°C}
5/009	• {using a well-defined temperature schedule}
5/0095	• {by employing wrappers}
5/02	• Staining or dyeing wood {(wood staining
	compositions <u>C09D 15/00</u> ); Bleaching wood
	(bleaching wood pulp <u>D21C 9/10</u> )
5/04	• Combined bleaching or impregnating and drying of
	wood
5/06	<ul> <li>Softening or hardening of wood</li> </ul>
5/065	• • {Hardening}
7/00	Chemical or physical treatment of cork
1100	(mechanical working of cork <u>B27J 5/00</u> )
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9/00	Chemical or physical treatment of reed, straw, or
	similar material (mechanical working of cane or the
0.000	like <u>B27J 1/00</u> )
9/002	• {Cane, bamboo}

9/005	• {Reed}
9/007	• {Straw}
2200/00	Wooden materials to be treated
2200/10	• Articles made of particles or fibres consisting of wood or other lignocellulosic material (wood composite materials made of particles or fibres <u>B27N</u> )
2200/15	Pretreated particles or fibres
2200/30	<ul> <li>Multilayer articles comprising wood (multilayered products <u>B32B</u>)</li> </ul>
2240/00	Purpose of the treatment
2240/10	• Extraction of components naturally occurring in wood, cork, straw, cane or reed (solvent extraction <u>B01D 11/00</u> )
2240/15	Decontamination of previously treated wood     (decontamination in general <u>A62D 3/00</u> )
2240/20	• Removing fungi, molds or insects (biocidal compositions <u>A01N</u> ; sterilization or disinfection of wood <u>A61L</u> )
2240/30	• Fireproofing (fireproofing materials in general C09K 21/00)
2240/50	
	. Ageing
2240/60	. Improving the heat-storage capacity
2240/70	Hydrophobation treatment
2240/90	• UV-protection