

# CPC COOPERATIVE PATENT CLASSIFICATION

## D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

#### D02 YARNS; MECHANICAL FINISHING OF YARNS OR ROPES; WARPING OR BEAMING

(NOTE omitted)

#### D02J FINISHING OR DRESSING OF FILAMENTS, YARNS, THREADS, CORDS, ROPES OR THE LIKE (curling or crimping [D02G](#); by treatment with liquids, gases or vapours [D06B](#); finishing other than by liquid treatment, of yarns in warp or sheet form [D06C](#); for chemical matters, see [D06L](#), [D06M](#), [D06P](#), [D06Q](#); treatment during rope-making, apparatus for treating ropes auxiliary to rope-making [D07B](#))

##### NOTE

Attention is drawn to the note following the title of Class [D02](#).

##### 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  | <b>Modifying the structure or properties resulting from a particular structure; Modifying, retaining, or restoring the physical form or cross-sectional shape, e.g. by use of dies or squeeze rollers (modifying only the surface <a href="#">D02J 3/00</a>)</b> | 1/228        | . . {Stretching in two or more steps, with or without intermediate steps}   |
|       |  | 1/229        | . . {Relaxing (in combination with crimping <a href="#">D02G 1/20</a> )}  |
| 1/02  | . Bulking, e.g. looping (by crimping, by curling <a href="#">D02G</a> )  | <b>3/00</b>  | <b>Modifying the surface</b>  |
| 1/04  | . Compacting   | 3/02         | . by abrading, scraping, scuffing, cutting, or nicking (preliminary roughening of fibres, e.g. for spinning, <a href="#">D01G 3/00</a> )  |
| 1/06  | . Imparting irregularity, e.g. slubbing or other non-uniform features, e.g. high- and low-shrinkage or strengthened and weakened sections  | 3/04         | . by brushing   |
| 1/08  | . Interlacing constituent filaments without breakage thereof, e.g. by use of turbulent air streams   | 3/06         | . by polishing, e.g. glazing, glossing  |
| 1/12  | . Modifying stretch/bulk properties of textured yarns or the like by after-treatment   | 3/08         | . . by compressing, e.g. by calendaring or ironing  |
| 1/14  | . Rendering uniform or evening non-uniform features  | 3/10         | . by indenting  |
| 1/16  | . Rubbing or similar working, e.g. to redistribute or remove fibres  | 3/12         | . by removing projecting ends of fibres   |
| 1/18  | . Separating or spreading  | 3/14         | . . by shearing   |
| 1/20  | . Stressing or stress-relieving, e.g. by vibration or subjection to electrostatic stress or electric discharge   | 3/16         | . . by singeing   |
| 1/22  | . Stretching or tensioning, shrinking or relaxing, e.g. by use of overfeed and underfeed apparatus, or preventing stretch (stretch spinning <a href="#">D01D 5/12</a> )  | 3/18         | . Treating with particulate, semi-solid, or solid substances, e.g. wax (during package formation <a href="#">B65H 71/00</a> ; waxing yarns or the like as incidental measures during spinning or twisting <a href="#">D01H 13/30</a> )  |
| 1/221 | . . {Preliminary treatments}   | <b>7/00</b>  | <b>Cleaning, e.g. removing dust, loose fibres, charred ends (in combination with the shearing, singeing, or otherwise removing of projecting fibre ends <a href="#">D02J 3/12</a>, <a href="#">D02J 3/14</a>, <a href="#">D02J 3/16</a>)</b>  |
| 1/222 | . . {Stretching in a gaseous atmosphere or in a fluid bed}   | <b>11/00</b> | <b>Combinations, not covered by any one of the preceding groups, of processes provided for in such groups; Plant for carrying-out such combinations of processes</b>  |
| 1/223 | . . {Stretching in a liquid bath}  | <b>13/00</b> | <b>Heating or cooling the yarn, thread, cord, rope, or the like, not specific to any one of the processes provided for in this subclass (heating, cooling or drying during spinning or twisting <a href="#">D01H</a>; drying of yarns or the like, in general <a href="#">F26B</a>)</b> |
| 1/224 | . . {Selection or control of the temperature during stretching}  | 13/001       | . {in a tube or vessel}   |
| 1/225 | . . {Mechanical characteristics of stretching apparatus}   |              |   |
| 1/226 | . . . {Surface characteristics of guiding or stretching organs}  |              |   |
| 1/227 | . . {Control of the stretching tension; Localisation of the stretching neck; Draw-pins}  |              |   |

## D02J

- 13/003 . {by contact with at least one stationary surface, e.g. a plate}
- 13/005 . {by contact with at least one rotating roll}
- 13/006 . {in a fluid bed ([stretching in a fluid bed D02J 1/222](#))}
- 13/008 . {with elimination of fumes}