

CPC COOPERATIVE PATENT CLASSIFICATION

D TEXTILES; PAPER

TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D01 **NATURAL OR ARTIFICIAL THREADS OR FIBRES; SPINNING** (metal threads [B21](#); fibres or filaments of softened glass, minerals, or slag [C03B 37/00](#); yarns [D02](#))
(NOTE omitted)

D01D **MECHANICAL METHODS OR APPARATUS IN THE MANUFACTURE OF ARTIFICIAL FILAMENTS, THREADS, FIBRES, BRISTLES OR RIBBONS**

NOTES

1. Attention is drawn to the note following the title of Class [D01](#).
2. Apparatus specially adapted for the manufacture of carbon filaments are classified in group [D01F 9/12](#)

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[D01D 5/10](#) covered by [D01D 5/08](#) and subgroups

| | | | |
|-------------|---|--------|--|
| 1/00 | Treatment of filament-forming or like material (working of plastics or substances in a plastic state, in general B29) | 5/0046 | {the fibre formed by coagulation, i.e. wet electro-spinning} |
| 1/02 | . Preparation of spinning solutions | 5/0053 | . . . {the material being a low molecular weight compound or an oligomer, and the fibres being formed by self-assembly} |
| 1/04 | . Melting filament-forming substances | 5/0061 | . . {characterised by the electro-spinning apparatus} |
| 1/06 | . Feeding liquid to the spinning head (constructions of pumps F04) | 5/0069 | . . . {characterised by the spinning section, e.g. capillary tube, protrusion or pin} |
| 1/065 | . . {Addition and mixing of substances to the spinning solution or to the melt; Homogenising} | 5/0076 | . . . {characterised by the collecting device, e.g. drum, wheel, endless belt, plate or grid (D01D 5/0046 takes precedence)} |
| 1/09 | . . Control of pressure, temperature or feeding rate | 5/0084 | {Coating by electro-spinning, i.e. the electro-spun fibres are not removed from the collecting device but remain integral with it, e.g. coating of prostheses} |
| 1/10 | . Filtering or de-aerating the spinning solution or melt | 5/0092 | . . . {characterised by the electrical field, e.g. combined with a magnetic fields, using biased or alternating fields} |
| 1/103 | . . {De-aerating} | 5/02 | . Starting the formation |
| 1/106 | . . {Filtering} | 5/04 | . Dry spinning methods (D01D 5/0038 takes precedence) |
| 4/00 | Spinnerette packs; Cleaning thereof (D01D 5/0069 , D01D 5/24 , D01D 5/253 , D01D 5/28 take precedence) | 5/06 | . Wet spinning methods (D01D 5/0046 takes precedence) |
| 4/02 | . Spinnerettes (alloys therefor C22C) | 5/08 | . Melt spinning methods (D01D 5/0023 takes precedence) |
| 4/022 | . . {Processes or materials for the preparation of spinnerettes} | 5/082 | . . {of mixed yarn} |
| 4/025 | . . {Melt-blowing or solution-blowing dies} | 5/084 | . . Heating filaments, threads or the like, leaving the spinnerettes |
| 4/027 | . . {Spinnerettes containing inserts} | 5/088 | . . Cooling filaments, threads or the like, leaving the spinnerettes |
| 4/04 | . Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general B08B) | 5/0885 | . . . {by means of a liquid} |
| 4/06 | . Distributing spinning solution or melt to spinning nozzles | 5/092 | . . . in shafts or chimneys |
| 4/08 | . Supporting spinnerettes or other parts of spinnerette packs | 5/096 | . . Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes |
| 5/00 | Formation of filaments, threads, or the like | 5/098 | . . with simultaneous stretching |
| 5/0007 | . {Electro-spinning (non-woven fabrics produced by electro-spinning D04H 1/728)} | 5/0985 | . . . {by means of a flowing gas (e.g. melt-blowing)} |
| 5/0015 | . . {characterised by the initial state of the material} | | |
| 5/0023 | . . . {the material being a polymer melt} | | |
| 5/003 | . . . {the material being a polymer solution or dispersion (D01D 5/0053 takes precedence)} | | |
| 5/0038 | {the fibre formed by solvent evaporation, i.e. dry electro-spinning} | | |

- 5/10 . . using organic materials
 - WARNING**
 - This group is no longer used for the classification of new documents as from July 2011. The backlog of this group is being continuously reclassified to [D01D 5/08](#) and its subgroups
- 5/11 . Flash-spinning
- 5/12 . Stretch-spinning methods ([D01D 5/098](#) takes precedence) finishing by stretching [D02J 1/22](#))
- 5/14 . . with flowing liquid {or gaseous} stretching media {, e.g. [solution-blowing](#)}
- 5/16 . . using rollers, or like mechanical devices, e.g. snubbing pins
- 5/18 . by means of rotating spinnerets
- 5/20 . with varying denier along their length
- 5/22 . with a crimped or curled structure; with a special structure to simulate wool ([producing crimped or curled effects in filaments or threads after formation D02G 1/00](#))
- 5/23 . . by asymmetrical cooling of filaments, threads, or the like, leaving the spinnerettes
- 5/24 . with a hollow structure; Spinnerette packs therefor ([D01D 5/38](#) takes precedence; [producing tubes of plastic material B29D](#); addition of agents forming hollow filaments [D01F 1/08](#))
- 5/247 . . Discontinuous hollow structure or microporous structure
- 5/253 . with a non-circular cross section; Spinnerette packs therefor ([D01D 5/38](#) takes precedence)
- 5/26 . Formation of staple fibres ([by flash-spinning D01D 5/11](#))
- 5/28 . while mixing different spinning solutions or melts during the spinning operation; Spinnerette packs therefor
- 5/30 . . Conjugate filaments; Spinnerette packs therefor
- 5/32 . . . Side-by-side structure; Spinnerette packs therefor
- 5/34 . . . Core-skin structure; Spinnerette packs therefor
- 5/36 . . . Matrix structure; Spinnerette packs therefor
- 5/38 . Formation of filaments, threads, or the like during polymerisation
- 5/40 . by applying a shearing force to a dispersion or solution of filament formable polymers, e.g. by stirring
- 5/42 . by cutting films into narrow ribbons or filaments or by fibrillation of films {or filaments}
- 5/423 . . {by fibrillation of films or filaments}
- 5/426 . . {by cutting films}
- 7/00 Collecting the newly-spun products** ([D01D 5/0076](#) takes precedence;) collecting newly-spun products with the imparting of twist [D01H](#))
- 7/02 . in centrifugal spinning pots
- 10/00 Physical treatment of artificial filaments or the like during manufacture, i.e. during a continuous production process before the filaments have been collected** ([finishing D02J](#))
- 10/02 . Heat treatment ([heating for finishing D02J 13/00](#))
- 10/04 . Supporting filaments or the like during their treatment
- 10/0409 . . {on bobbins}
- 10/0418 . . {as cakes or similar coreless thread packages}
- 10/0427 . . {as hanks}
- 10/0436 . . {while in continuous movement ([forwarding filamentary material B65H 51/00](#))}
- 10/0445 . . . {using rollers with mutually inclined axes}
- 10/0454 . . . {using reels}
- 10/0463 . . . {the filaments being maintained parallel}
- 10/0472 . . . {the filaments being supported on endless bands}
- 10/0481 . . . {the filaments passing through a tube}
- 10/049 . . {as staple fibres}
- 10/06 . Washing or drying
- 11/00 Other features of manufacture**
- 11/02 . Opening bundles to space the threads or filaments from one another
- 11/04 . Fixed guides
- 11/06 . Coating with spinning solutions or melts
- 13/00 Complete machines for producing artificial threads**
- 13/02 . Elements of machines in combination