

CPC COOPERATIVE PATENT CLASSIFICATION

D TEXTILES; PAPER

TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D01 NATURAL OR MAN-MADE THREADS OR FIBRES; SPINNING

(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

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.

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1/00 | Treatment of filament-forming or like material (working of plastics or substances in a plastic state, in general B29) | 5/0053 | . . . {the material being a low molecular weight compound or an oligomer, and the fibres being formed by self-assembly} |
| 1/02 | . Preparation of spinning solutions | 5/0061 | . . {characterised by the electro-spinning apparatus} |
| 1/04 | . Melting filament-forming substances | 5/0069 | . . . {characterised by the spinning section, e.g. capillary tube, protrusion or pin} |
| 1/06 | . Feeding liquid to the spinning head (constructions of pumps F04) | 5/0076 | . . . {characterised by the collecting device, e.g. drum, wheel, endless belt, plate or grid (D01D 5/0046 takes precedence)} |
| 1/065 | . . {Addition and mixing of substances to the spinning solution or to the melt; Homogenising} | 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} |
| 1/09 | . . Control of pressure, temperature or feeding rate | 5/0092 | . . . {characterised by the electrical field, e.g. combined with a magnetic fields, using biased or alternating fields} |
| 1/10 | . Filtering or de-aerating the spinning solution or melt | 5/02 | . Starting the formation |
| 1/103 | . . {De-aerating} | 5/04 | . Dry spinning methods {(D01D 5/0038 takes precedence)} |
| 1/106 | . . {Filtering} | 5/06 | . Wet spinning methods {(D01D 5/0046 takes precedence)} |
| 4/00 | Spinnerette packs; Cleaning thereof (D01D 5/0069), D01D 5/24 , D01D 5/253 , D01D 5/28 take precedence) | 5/08 | . Melt spinning methods {(D01D 5/0023 takes precedence)} |
| 4/02 | . Spinnerettes (alloys therefor C22C) | 5/082 | . . {of mixed yarn} |
| 4/022 | . . {Processes or materials for the preparation of spinnerettes} | 5/084 | . . Heating filaments, threads or the like, leaving the spinnerettes |
| 4/025 | . . {Melt-blowing or solution-blowing dies} | 5/088 | . . Cooling filaments, threads or the like, leaving the spinnerettes |
| 4/027 | . . {Spinnerettes containing inserts} | 5/0885 | . . . {by means of a liquid} |
| 4/04 | . Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general B08B) | 5/092 | . . . in shafts or chimneys |
| 4/06 | . Distributing spinning solution or melt to spinning nozzles | 5/096 | . . Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes |
| 4/08 | . Supporting spinnerettes or other parts of spinnerette packs | 5/098 | . . with simultaneous stretching |
| 5/00 | Formation of filaments, threads, or the like | 5/0985 | . . . {by means of a flowing gas (e.g. melt-blowing)} |
| 5/0007 | . {Electro-spinning (non-woven fabrics produced by electro-spinning D04H 1/728)} | | |
| 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} | | |
| 5/0046 | {the fibre formed by coagulation, i.e. wet 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