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.

1/00  Treatment of filament-forming or like material
(working of plastics or substances in a plastic state, in general B29)
1/02  . Preparations of spinning solutions
1/04  . Melting filament-forming substances
1/06  . Feeding liquid to the spinning head (constructions of pumps F04)
1/065  . {Addition and mixing of substances to the spinning solution or to the melt; Homogenising}
1/09  . Control of pressure, temperature or feeding rate
1/10  . Filtering or de-aerating the spinning solution or melt
1/103  . {De-aerating}
1/106  . {Filtering}

4/00  Spinnerette packs; Cleaning thereof
((D01D 5/0069), D01D 5/24, D01D 5/253, D01D 5/28 take precedence)
4/02  . Spinnerettes (alloys therefor C22C)
4/022  . {Processes or materials for the preparation of spinnerettes}
4/025  . {Melt-blowing or solution-blowing dies}
4/027  . {Spinnerettes containing inserts}
4/04  . Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general B08B)
4/06  . Distributing spinning solution or melt to spinning nozzles
4/08  . Supporting spinnerettes or other parts of spinnerette packs

5/00  Formation of filaments, threads, or the like
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}
5/0053  . . . . {the material being a low molecular weight compound or an oligomer, and the fibres being formed by self-assembly}
5/0061  . . . . {characterised by the electro-spinning apparatus}
5/0069  . . . . {characterised by the spinning section, e.g. capillary tube, protrusion or pin}
5/0076  . . . . {characterised by the collecting device, e.g. drum, wheel, endless belt, plate or grid (D01D 5/0046 takes precedence)}
5/0084  . . . . . {Coating by electro-spinning, i.e. the electro-spin fibres are not removed from the collecting device but remain integral with it, e.g. coating of prostheses}
5/0092  . . . . . {characterised by the electrical field, e.g. combined with a magnetic fields, using biased or alternating fields}
5/02  . Starting the formation
5/04  . Dry spinning methods { (D01D 5/0038 takes precedence)}
5/06  . Wet spinning methods { (D01D 5/0046 takes precedence)}
5/08  . Melt spinning methods { (D01D 5/0023 takes precedence)}
5/082  . . . . {of mixed yarn}
5/084  . . . . Heating filaments, threads or the like, leaving the spinnerettes
5/088  . . . . Cooling filaments, threads or the like, leaving the spinnerettes
5/0885  . . . . . {by means of a liquid}
5/092  . . . . . in shafts or chimneys
5/096  . . . . Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes
5/098  . . . . . with simultaneous stretching
5/0985  . . . . . {by means of a flowing gas (e.g. melt-blowing)}
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.

Flash-spinning

Stretch-spinning methods ([D01D 5/098 takes precedence] finishing by stretching D02J 1/22)

with flowing liquid [or gaseous] stretching media [e.g. solution-blowing]

using rollers, or like mechanical devices, e.g. snubbing pins

by means of rotating spinnerets

with varying denier along their length

with a cramped or curled structure; with a special structure to simulate wool (producing cramped or curled effects in filaments or threads after formation D02G 1/00)

by asymmetrical cooling of filaments, threads, or the like, leaving the spinnerettes

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)

Discontinuous hollow structure or microporous structure

with a non-circular cross section; Spinnerette packs therefor (D01D 5/38 takes precedence)

Formation of staple fibres (by flash-spinning D01D 5/11)

while mixing different spinning solutions or melts during the spinning operation; Spinnerette packs therefor

Conjugate filaments; Spinnerette packs therefor

Side-by-side structure; Spinnerette packs therefor

Core-skin structure; Spinnerette packs therefor

Matrix structure; Spinnerette packs therefor

Formation of filaments, threads, or the like during polymerisation

by applying a shearing force to a dispersion or solution of filament formable polymers, e.g. by stirring

by cutting films into narrow ribbons or filaments or by fibrillation of films [or filaments]

(by fibrillation of films or filaments)

(by cutting films)

Collecting the newly-spun products ([D01D 5/0076 takes precedence] collecting newly-spun products with the imparting of twist D01H)

in centrifugal spinning pots

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)

Heat treatment (heating for finishing D02J 13/00)

Supporting filaments or the like during their treatment

(as staple fibres)

Washing or drying

Other features of manufacture

Opening bundles to space the threads or filaments from one another

Fixed guides

Coating with spinning solutions or melts

Complete machines for producing artificial threads

Elements of machines in combination