

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](#)

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
[D01D 5/10](#) covered by [D01D 5/08](#) and subgroups
2. 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)	5/0038 {the fibre formed by solvent evaporation, i.e. dry electro-spinning}
1/02	. Preparation of spinning solutions	5/0046 {the fibre formed by coagulation, i.e. wet electro-spinning}
1/04	. Melting filament-forming substances	5/0053	. . . {the material being a low molecular weight compound or an oligomer, and the fibres being formed by self-assembly}
1/06	. Feeding liquid to the spinning head (constructions of pumps F04)	5/0061	. . {characterised by the electro-spinning apparatus}
1/065	. . {Addition and mixing of substances to the spinning solution or to the melt; Homogenising}	5/0069	. . . {characterised by the spinning section, e.g. capillary tube, protrusion or pin}
1/09	. . Control of pressure, temperature or feeding rate	5/0076	. . . {characterised by the collecting device, e.g. drum, wheel, endless belt, plate or grid (D01D 5/0046 takes precedence)}
1/10	. Filtering or de-aerating the spinning solution or melt	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}
1/103	. . {De-aerating}	5/0092	. . . {characterised by the electrical field, e.g. combined with a magnetic fields, using biased or alternating fields}
1/106	. . {Filtering}	5/02	. Starting the formation
4/00	Spinnerette packs; Cleaning thereof (D01D 5/0069), D01D 5/24 , D01D 5/253 , D01D 5/28 take precedence)	5/04	. Dry spinning methods (D01D 5/0038 takes precedence)
4/02	. Spinnerettes (alloys therefor C22C)	5/06	. Wet spinning methods (D01D 5/0046 takes precedence)
4/022	. . {Processes or materials for the preparation of spinnerettes}	5/08	. Melt spinning methods (D01D 5/0023 takes precedence)
4/025	. . {Melt-blowing or solution-blowing dies}	5/082	. . {of mixed yarn}
4/027	. . {Spinnerettes containing inserts}	5/084	. . Heating filaments, threads or the like, leaving the spinnerettes
4/04	. Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general B08B)	5/088	. . Cooling filaments, threads or the like, leaving the spinnerettes
4/06	. Distributing spinning solution or melt to spinning nozzles	5/0885	. . . {by means of a liquid}
4/08	. Supporting spinnerettes or other parts of spinnerette packs	5/092	. . . in shafts or chimneys
5/00	Formation of filaments, threads, or the like	5/096	. . Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes
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)}		

- 5/098 . . with simultaneous stretching
- 5/0985 . . . {by means of a flowing gas (e.g. melt-blowing)}
- 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