

ECLA EUROPEAN CLASSIFICATION

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

[N: **WARNING** [N1107]

The following IPC groups are not used in the internal ECLA classification scheme. Subject matter covered by these groups is classified in the following ECLA groups: [D01D5/10](#) covered by [D01D5/08](#) and subgroups]

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 [D01F9/12](#)

D01D1/00 Treatment of filament-forming or like material (working of plastics or substances in a plastic state, in general [B29](#))

- D01D1/02 . Preparation of spinning solutions
- D01D1/04 . Melting filament-forming substances
- D01D1/06 . Feeding liquid to the spinning head (constructions of pumps F04)
- D01D1/06B . . [N: Addition and mixing of substances to the spinning solution or to the melt; Homogenising]
- D01D1/09 . . Pressure, temperature or feeding rate regulation
- D01D1/10 . Filtering or de-aerating the spinning solution or melt
- D01D1/10B . . [N: De-aerating]
- D01D1/10D . . [N: Filtering]

D01D4/00 Spinnerette packs; Cleaning thereof ([N: [D01D5/00E4B](#)], [D01D5/24](#), [D01D5/253](#), [D01D5/28](#) take precedence) [C0908]

- D01D4/02 . Spinnerettes (alloys therefor [C22C](#))
- D01D4/02B . . [N: Processes or materials for the preparation of spinnerettes]
- D01D4/02C . . [N: Melt-blowing or solution-blowing dies] [C1112]
- D01D4/02D . . [N: Spinnerettes containing inserts]
- D01D4/04 . Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general [B08B](#))
- D01D4/06 . Distributing spinning solution or melt to spinning nozzles
- D01D4/08 . Supporting spinnerettes or other parts of spinnerette packs

- D01D5/00** **Formation of filaments, threads, or the like**
- D01D5/00E . [N: Electro-spinning (non-woven fabrics produced by electro-spinning [D04H1/728](#))] [N0908] [C1104]
 - D01D5/00E2 . . [N: characterised by the initial state of the material] [N0908]
 - D01D5/00E2B . . . [N: the material being a polymer melt] [N0908]
 - D01D5/00E2D . . . [N: the material being a polymer solution or dispersion ([D01D5/00E2E](#) takes precedence)] [N0908]
 - D01D5/00E2D2 [N: the fibre formed by solvent evaporation, i.e. dry electro-spinning] [N0908]
 - D01D5/00E2D4 [N: the fibre formed by coagulation, i.e. wet electro-spinning] [N0908]
 - D01D5/00E2E . . . [N: the material being a low molecular weight compound or an oligomer, and the fibres being formed by self-assembly] [N0908]
 - D01D5/00E4 . . [N: characterised by the electro-spinning apparatus] [N0908]
 - D01D5/00E4B . . . [N: characterised by the spinning section, e.g. capillary tube, protrusion or pin] [N0908]
 - D01D5/00E4D . . . [N: characterised by the collecting device, e.g. drum, wheel, endless belt, plate or grid ([D01D5/00E2D4](#) takes precedence)] [N0908]
 - D01D5/00E4D2 [N: 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] [N0908]
 - D01D5/00E4E . . . [N: characterised by the electrical field, e.g. combined with a magnetic fields, using biased or alternating fields] [N0908]

 - D01D5/02 . Starting the formation
 - D01D5/04 . Dry spinning methods [N: ([D01D5/00E2D2](#) takes precedence)] [C0908]
 - D01D5/06 . Wet spinning methods [N: ([D01D5/00E2D4](#) takes precedence)] [C0908]
 - D01D5/08 . Melt spinning methods [N: ([D01D5/00E2B](#) takes precedence)] [C0908]
 - D01D5/08B . . [N: of mixed yarn]
 - D01D5/084 . . Heating filaments, threads or the like, leaving the spinnerettes
 - D01D5/088 . . Cooling filaments, threads or the like, leaving the spinnerettes
 - D01D5/088B . . . [N: by means of a liquid]
 - D01D5/092 . . . in shafts or chimneys
 - D01D5/096 . . Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes
 - D01D5/098 . . with simultaneous stretching
 - D01D5/098B . . . [N: by means of a flowing gas (e.g. melt-blowing)]
 - D01D5/10 . . using organic materials

 - [N: **WARNING** [N1107]
 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 [D01D5/08](#) and its subgroups
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 - D01D5/11 . Flash-spinning

- D01D5/12 . Stretch-spinning methods (finishing by stretching [D02J1/22](#)) [N: [D01D5/098](#) takes precedence] [C1112]
- D01D5/14 . . with flowing liquid [N: or gaseous] stretching media [N: e.g. solution-blowing] [C1112]
- D01D5/16 . . using rollers, or like mechanical devices, e.g. snubbing pins
- D01D5/18 . by means of rotating spinnerets
- D01D5/20 . with varying denier along their length
- D01D5/22 . with a crimped or curled structure; with a special structure to simulate wool (producing crimped or curled effect in filaments or threads after formation [D02G1/00](#))
- D01D5/23 . . by asymmetrical cooling of filaments, threads, or the like, leaving the spinnerettes
- D01D5/24 . with a hollow structure; Spinnerette packs therefor ([D01D5/38](#) takes precedence; producing tubes of plastic material [B29D](#); addition of agents forming hollow filaments [D01F1/08](#))
- D01D5/247 . . Discontinuous hollow structure or microporous structure
- D01D5/253 . with a non-circular cross section; Spinnerette packs therefor ([D01D5/38](#) takes precedence)
- D01D5/26 . Formation of staple fibres (by flash-spinning [D01D5/11](#))
- D01D5/28 . while mixing different spinning solutions or melts during the spinning operation; Spinnerette packs therefor
- D01D5/30 . . Conjugate filaments; Spinnerette packs therefor
- D01D5/32 . . . Side-by-side structure; Spinnerette packs therefor
- D01D5/34 . . . Core-skin structure; Spinnerette packs therefor
- D01D5/36 . . . Matrix structure; Spinnerette packs therefor
- D01D5/38 . Formation of filaments, threads, or the like during polymerisation
- D01D5/40 . by applying a shearing force to a dispersion or solution of filament formable polymers, e.g. by stirring
- D01D5/42 . by cutting films into narrow ribbons or filaments or by fibrillation of films [N: or filaments]
- D01D5/42B . . [N: by fibrillation of films or filaments]
- D01D5/42C . . [N: by cutting films]
- D01D7/00** **Collecting the newly-spun products [N: ([D01D5/00E4D](#) takes precedence)] (collecting newly-spun products with the imparting of twist [D01H](#)) [C0908]**
- D01D7/02 . in centrifugal spinning pots
- D01D10/00** **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](#))**

- D01D10/02 . Heat treatment ([heating for finishing D02J13/00](#))
- D01D10/04 . Supporting filaments or the like during their treatment
- D01D10/04B . . [N: on bobbins]
- D01D10/04D . . [N: as cakes or similar coreless thread packages]
- D01D10/04F . . [N: as hanks]
- D01D10/04H . . [N: while in continuous movement ([forwarding filamentary material B65H51/00](#))]
- D01D10/04H1 . . . [N: using rollers with mutually inclined axes]
- D01D10/04H2 . . . [N: using reels]
- D01D10/04H3 . . . [N: the filaments being maintained parallel]
- D01D10/04H4 . . . [N: the filaments being supported on endless bands]
- D01D10/04H5 . . . [N: the filaments passing through a tube]
- D01D10/04K . . [N: as staple fibres]
- D01D10/06 . Washing or drying
- D01D11/00 Other features of manufacture**
- D01D11/02 . Opening bundles to space the threads or filaments from one another
- D01D11/04 . Fixed guides
- D01D11/06 . Coating with spinning solutions or melts
- D01D13/00 Complete machines for producing artificial threads**
- D01D13/02 . Elements of machines in combination