

## SECTION D — TEXTILES; PAPER

### D01 NATURAL OR ARTIFICIAL THREADS OR FIBRES; SPINNING

#### D01D MECHANICAL METHODS OR APPARATUS IN THE MANUFACTURE OF ARTIFICIAL FILAMENTS, THREADS, FIBRES, BRISTLES, OR RIBBONS (metal threads B21; fibres or filaments of softened glass, minerals or slag C03B 37/00)

##### Note(s)

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.

##### Subclass index

MECHANICAL TREATMENT OF FILAMENT-FORMING MATERIAL.....	1/00
PRODUCTION OF ARTIFICIAL FIBRES	
Methods.....	5/00
Spinnerette packs; formation of filaments; collecting the newly-spun products.....	4/00, 5/00, 7/00
Physical treatment during manufacture.....	10/00
Other operations.....	11/00
COMPLETE MACHINES; DETAILS.....	13/00, 4/02, 7/00, 11/04

<b>1/00 Treatment of filament-forming or like material</b> (working of plastics or substances in a plastic state, in general B29)	5/12	• Stretch-spinning methods (finishing by stretching D02J 1/22)
1/02 • Preparation of spinning solutions	5/14	• • with flowing liquid stretching media
1/04 • Melting filament-forming substances	5/16	• • using rollers, or like mechanical devices, e.g. snubbing pins
1/06 • Feeding liquid to the spinning head (constructions of pumps F04)	5/18	• by means of rotating spinnerets
1/09 • • Pressure, temperature or feeding rate regulation [3]	5/20	• with varying denier along their length
1/10 • Filtering or de-aerating the spinning solution or melt	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)
<b>4/00 Spinnerette packs; Cleaning thereof</b> (D01D 5/24, D01D 5/253, D01D 5/28 take precedence) [3]	5/23	• • by asymmetrical cooling of filaments, threads, or the like, leaving the spinnerettes [3]
4/02 • Spinnerettes (alloys therefor C22C) [3]	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) [3]
4/04 • Cleaning spinnerettes or other parts of the spinnerette packs (cleaning in general B08B) [3]	5/247	• • Discontinuous hollow structure or microporous structure [3]
4/06 • Distributing spinning solution or melt to spinning nozzles [3]	5/253	• with a non-circular cross section; Spinnerette packs therefor (D01D 5/38 takes precedence) [3]
4/08 • Supporting spinnerettes or other parts of spinnerette packs [3]	5/26	• Formation of staple fibres (by flash-spinning D01D 5/11)
<b>5/00 Formation of filaments, threads, or the like</b>	5/28	• while mixing different spinning solutions or melts during the spinning operation; Spinnerette packs therefor
5/02 • Starting the formation	5/30	• • Conjugate filaments; Spinnerette packs therefor [3]
5/04 • Dry spinning methods	5/32	• • • Side-by-side structure; Spinnerette packs therefor [3]
5/06 • Wet spinning methods	5/34	• • • Core-skin structure; Spinnerette packs therefor [3]
5/08 • Melt-spinning methods	5/36	• • • Matrix structure; Spinnerette packs therefor [3]
5/084 • • Heating filaments, threads or the like, leaving the spinnerettes [3]	5/38	• Formation of filaments, threads, or the like during polymerisation [3]
5/088 • • Cooling filaments, threads or the like, leaving the spinnerettes [3]		
5/092 • • • in shafts or chimneys [3]		
5/096 • • Humidity control, or oiling, of filaments, threads or the like, leaving the spinnerettes [3]		
5/098 • • with simultaneous stretching [4]		
5/10 • • using organic materials		
5/11 • Flash-spinning [3]		

## D01D

- 5/40 • by applying a shearing force to a dispersion or solution of filament formable polymers, e.g. by stirring [3]
- 5/42 • by cutting films into narrow ribbons or filaments or by fibrillation of films [3]
- 7/00 **Collecting the newly-spun products** (collecting newly-spun products with the imparting of twist D01H)
  - 7/02 • in centrifugal spinning pots [3]
- 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) [4]
- 10/02 • Heat treatment (heating for finishing D02J 13/00) [4]
- 10/04 • Supporting filaments or the like during their treatment [4]
- 10/06 • Washing or drying [4]
- 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