

SECTION D – TEXTILES; PAPER

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)

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

- (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. [5]

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

1/00 Treatment of filament-forming or like material (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)
4/00 Spinnerette packs; Cleaning thereof (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)
5/00 Formation of filaments, threads, or the like	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