

# CPC COOPERATIVE PATENT CLASSIFICATION

## D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

#### D03 WEAVING

#### D03D WOVEN FABRICS; METHODS OF WEAVING; LOOMS

##### NOTES

1. Class [D06](#) takes precedence over this subclass in respect of processes involving both weaving and finishing steps and in respect of the finished fabrics.
2. A method of weaving is classified in the group designating the fabric woven unless the method is characterised by the operation of a particular loom rather than by the production of a particular fabric. In this case, the method is classified in the group for the loom.
3. In this subclass, further classification in indexing scheme [D10B](#) for aspects relating to textiles is required.
4. In this subclass, if there is any doubt as to which of the essential features is the most important (this is usually the most restrictive feature), the groups designating woven fabrics should be considered in the order in which they appear at each level of indentation, except that groups designating woven pile fabrics are to be considered as taking precedence over groups designating other woven fabrics.

##### 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.}

#### Woven fabrics; Methods of weaving other than those characterised by the operation of a particular loom

##### **1/00 Woven fabrics designed to make specified articles**

- 1/0005 . {Woven fabrics for safety belts}
- 1/0011 . {Woven fabrics for labels}
- 1/0017 . {Woven household fabrics}
- 1/0023 . . {Mops or wipes}
- 1/0029 . . {Doormats}
- 1/0035 . {Protective fabrics}
- 1/0041 . . {Cut or abrasion resistant}
- 1/0043 . . {for elongated members, i.e. sleeves}
- 1/0047 . . {Camouflage fabrics}
- 1/0052 . . {Antiballistic fabrics}
- 1/0058 . . {Electromagnetic radiation resistant}
- 1/0064 . . {Noise dampening}
- 1/007 . . {UV radiation protecting}
- 1/0076 . {Photovoltaic fabrics}
- 1/0082 . {Fabrics for printed circuit boards}
- 1/0088 . {Fabrics having an electronic function}
- 1/0094 . {Belts ([D03D 1/0005](#) takes precedence)}
- 1/02 . Inflatable articles
- 1/04 . Sack- or bag-like articles
- 1/06 . Curtain heading tapes
- 1/08 . Ladder tapes ([ladder tapes for venetian blinds E06B 9/382](#))

##### **3/00 Woven fabrics characterised by their shape**

- 3/005 . {Tapes or ribbons not otherwise provided for ([D03D 1/0005](#), [D03D 1/0011](#), [D03D 1/06](#), [D03D 1/08](#), [D03D 1/0094](#) take precedence)}
- 3/02 . Tubular fabrics
- 3/04 . Endless fabrics
- 3/06 . Fabrics of varying width

- 3/08 . Arched, corrugated, or like fabrics

##### **5/00 Selvages**

##### **7/00 Woven fabrics designed to be resilient, i.e. to recover from compressive stress**

##### **9/00 Open-work fabrics**

##### **11/00 Double or multi-ply fabrics not otherwise provided for**

- 11/02 . Fabrics formed with pockets, tubes, loops, folds, tucks or flaps ([fabrics consisting of a single tube D03D 3/02](#))

##### **13/00 Woven fabrics characterised by the special disposition of the warp or weft threads, e.g. with curved weft threads, with discontinuous warp threads, with diagonal warp or weft**

- 13/002 . {With diagonal warps or wefts}
- 13/004 . {with weave pattern being non-standard or providing special effects}
- 13/006 . {With additional leno yarn}
- 13/008 . {characterised by weave density or surface weight}

##### **15/00 Woven fabrics characterised by the material, structure or properties of the fibres, filaments, yarns, threads or other warp or weft elements used**

- 15/20 . characterised by the material of the fibres or filaments constituting the yarns or threads
- 15/208 . . cellulose-based
- 15/217 . . . natural from plants, e.g. cotton
- 15/225 . . . artificial, e.g. viscose
- 15/233 . . protein-based, e.g. wool or silk
- 15/235 . . . {Cashmere or silk}
- 15/242 . . inorganic, e.g. basalt
- 15/247 . . . {Mineral}

15/25	. . . Metal
15/258	. . . . Noble metal
15/267	. . . Glass
15/275	. . . Carbon fibres
15/283	. . synthetic polymer-based, e.g. polyamide or polyester fibres ( <a href="#">cellulose-based artificial fibres D03D 15/225</a> )
15/292	. . Conjugate, i.e. bi- or multicomponent, fibres or filaments
15/30	. characterised by the structure of the fibres or filaments
15/33	. . Ultrafine fibres, e.g. microfibrils or nanofibrils
15/37	. . with specific cross-section or surface shape
15/40	. characterised by the structure of the yarns or threads
15/41	. . with specific twist
15/43	. . with differing diameters
15/44	. . with specific cross-section or surface shape
15/46	. . . Flat yarns, e.g. tapes or films
15/47	. . multicomponent, e.g. blended yarns or threads ( <a href="#">multicomponent fibres or filaments D03D 15/292</a> )
15/49	. . textured ( <a href="#">chenille D03D 27/18</a> ); curled; crimped
15/497	. . { <a href="#">Knitted threads</a> }
15/50	. characterised by the properties of the yarns or threads
15/507	. . magnetic
15/513	. . heat-resistant or fireproof
15/52	. . thermal insulating, e.g. heating or cooling
15/527	. . waterproof or water-repellent
15/533	. . antistatic; electrically conductive
15/54	. . coloured
15/547	. . with optical functions other than colour, e.g. comprising light-emitting fibres
15/553	. . . with metallic effect ( <a href="#">metal D03D 15/25</a> )
15/56	. . elastic
15/567	. . Shapes or effects upon shrinkage
15/573	. . Tensile strength
15/58	. . characterised by the coefficients of friction
15/587	. . adhesive; fusible
15/593	. . Stiff materials, e.g. cane or slat
15/60	. characterised by the warp or weft elements other than yarns or threads
15/62	. . Cords or ropes
15/63	. . Straps, e.g. leather straps
15/65	. . Paper
15/67	. . Metal wires
15/68	. . Scaffolding threads, i.e. threads removed after weaving
15/69	. . { <a href="#">Threads with beads</a> }
17/00	<b>Woven fabrics having elastic or stretch properties due to manner of weaving</b> ( <a href="#">fabrics using stretchable or elastic threads D03D 15/56</a> )
19/00	<b>Gauze or leno-woven fabrics</b>
21/00	<b>Lappet- or swivel-woven fabrics</b>
23/00	<b>General weaving methods not special to the production of any particular woven fabric or the use of any particular loom; Weaves not provided for in any other single group</b>
25/00	<b>Woven fabrics not otherwise provided for</b>

25/005	. { <a href="#">Three-dimensional woven fabrics</a> }
27/00	<b>Woven pile fabrics</b>
27/02	. wherein the pile is formed by warp or weft
27/04	. . Weft pile fabrics
27/06	. . Warp pile fabrics
27/08	. . . Terry fabrics
27/10	. . Fabrics woven face-to-face, e.g. double velvet
27/12	. wherein pile tufts are inserted during weaving
27/14	. . with tufts around warps
27/16	. . with tufts around wefts
27/18	. Chenille fabrics

#### **Looms; Methods of weaving characterised by the operation of particular looms**

29/00	<b>Hand looms</b>
31/00	<b>Lappet, swivel or other looms for forming embroidery-like decoration on fabrics</b>
33/00	<b>Multiple looms, i.e. two or more looms assembled together, whether or not they have mechanisms in common</b> ( <a href="#">D03D 35/00 takes precedence</a> )
35/00	<b>Smallware looms, i.e. looms for weaving ribbons or other narrow fabrics</b> ( <a href="#">D03D 47/00 takes precedence</a> )
35/005	. { <a href="#">Shuttles</a> }
37/00	<b>Circular looms</b> ( <a href="#">looms for weaving separate fabrics disposed in a circle or polygon D03D 33/00</a> )
39/00	<b>Pile-fabric looms</b>
39/02	. Axminster looms, i.e. wherein pile tufts are inserted during weaving
39/04	. . Spool Axminster looms
39/06	. . . Tuft yarn tube or spool frames
39/08	. . Gripper Axminster looms
39/083	. . . { <a href="#">Selecting mechanisms</a> }
39/086	. . . { <a href="#">Gripper details</a> }
39/10	. Wire-tapestry looms, e.g. for weaving velvet or Brussels or Wilton carpets, the pile being formed over weftwise wires
39/12	. . Mechanisms for operating the pile wires
39/14	. . Construction of the pile wires, e.g. pile wires which cut
39/16	. Double-plush looms, i.e. for weaving two pile fabrics face-to-face
39/18	. . Separating the two plush layers, e.g. by cutting
39/20	. Looms forming pile over warpwise wires
39/22	. Terry looms
39/223	. . { <a href="#">Cloth control</a> }
39/226	. . { <a href="#">Sley control</a> }
39/24	. Devices for cutting the pile on the loom ( <a href="#">pile wires which cut D03D 39/14; separating two plush layers D03D 39/18</a> )
41/00	<b>Looms not otherwise provided for, e.g. for weaving chenille yarn; Details peculiar to these looms</b>
41/001	. { <a href="#">Hair-cloth looms</a> }
41/002	. { <a href="#">Looms for weaving reed, straw or wood</a> }
41/004	. { <a href="#">Looms for three-dimensional fabrics</a> }
41/005	. { <a href="#">Linear-shed multiphase looms</a> }
41/007	. { <a href="#">Vertical looms</a> }
41/008	. { <a href="#">Looms for weaving flat yarns</a> }
43/00	<b>Looms with change-boxes</b>

- 43/02 . with drop boxes
- 43/04 . . Operating mechanisms
- 43/06 . with rotary boxes
- 43/08 . . Operating mechanisms
- 43/10 . Weft catchers, i.e. means for preventing entanglement of wefts
- 45/00 Looms with automatic weft replenishment**  
(automatic replenishment in smallware looms [D03D 35/00](#), in circular looms [D03D 37/00](#))
- 45/02 . Controlling replenishment
- 45/04 . . Pirm feelers or other detectors for initiating replenishment (weft stop motions [D03D 51/34](#))
- 45/06 . . . mechanical
- 45/08 . . . . of the side-slip type
- 45/10 . . . electrical
- 45/12 . . . optical
- 45/14 . . Storing the need for replenishment or the colour required until the spent shuttle returns to the replenishing end of the loom
- 45/16 . . . selecting thereby weft of correct colour
- 45/18 . . Shuttle feelers or other devices for preventing replenishment if shuttle is incorrectly positioned in shuttle box (shuttle stop motions [D03D 51/40](#))
- 45/20 . Changing bobbins, cops, or other shuttle stock
- 45/22 . . effected with shuttle in normal shuttle box
- 45/24 . . effected otherwise than in normal box
- 45/26 . . Magazines
- 45/28 . . . for one type of thread, e.g. same colour
- 45/30 . . . . rotary
- 45/32 . . . for several types of thread, e.g. multicolour
- 45/34 . Shuttle changing
- 45/36 . . fresh shuttle being substituted for spent shuttle in the same cell of shuttle box
- 45/38 . . Shuttle box with an extra cell which is used only during replenishment
- 45/40 . . . the spent shuttle being received in the normal cell and the fresh shuttle being picked from the extra cell
- 45/42 . . . the spent shuttle being received in the extra cell and the fresh shuttle being picked from the normal cell
- 45/44 . . Magazines
- 45/46 . . . for one type of thread, e.g. single colour
- 45/48 . . . for several types of threads, e.g. multicolour
- 45/50 . Cutting, holding, manipulating, or disposing of, weft ends
- 45/52 . . Cutting weft of depleted shuttle near shuttle and holding the piece attached to the fabric
- 45/54 . . Cutting fresh weft and holding the piece attached to the fabric
- 45/56 . . Cutting depleted and fresh wefts at selvage
- 45/58 . . Removing tip bunch or fresh weft end from fresh bobbin
- 45/60 . . . substantially by air stream or suction
- 45/62 . . Disposing of waste pieces of cut weft end ([D03D 45/58](#) takes precedence)
- 47/00 Looms in which bulk supply of weft does not pass through shed, e.g. shuttleless looms, gripper shuttle looms, dummy shuttle looms** ([circular looms D03D 37/00](#))
- 47/02 . wherein loops of continuous weft thread are inserted, i.e. double picks
- 47/04 . . by a reciprocating needle having a permanently-threaded eye
- 47/06 . . by a pivoted needle having a permanently-threaded eye
- 47/08 . . . the path of the needle being modified by cams, linkages, or other means
- 47/10 . . by a forked needle pushing loop of weft through shed
- 47/12 . wherein single picks of weft thread are inserted, i.e. with shedding between each pick
- 47/125 . . {Weft holding devices (if the weft is reinserted in the next shed [D03D 47/48](#); in jet looms [D03D 47/308](#))}
- 47/14 . . by a gripper needle taking the end of the weft through the shed
- 47/16 . . by a gripper needle entering the shed empty and drawing the weft as it retracts
- 47/18 . . two weft inserters meeting at or near the middle of the shed and transferring the weft from one to the other
- 47/20 . . Constructional features of the thread-engaging device on the inserters
- 47/22 . . . adapted for working a loop of weft part-way inserted in the shed and then straightened-out
- 47/23 . . . Thread grippers ([in dummy or gripper shuttles D03J 5/06](#))
- 47/233 . . . . {Carrying grippers}
- 47/236 . . . . {Drawing grippers}
- 47/24 . . by gripper or dummy shuttle ([travelling-wave-shed looms D03D 47/26](#); [inserting mechanisms for shuttles D03D 49/24](#))
- 47/25 . . . inserted from only one side of loom
- 47/26 . . Travelling-wave-shed looms
- 47/261 . . . {Preparation of weft}
- 47/262 . . . {Shedding, weft insertion or beat-up mechanisms}
- 47/263 . . . . {Weft insertion and beat-up mechanisms}
- 47/265 . . . . {Beat-up mechanisms ([D03D 47/263](#) takes precedence)}
- 47/266 . . . . {Weft insertion mechanisms ([D03D 47/263](#) takes precedence)}
- 47/267 . . . . {Shedding mechanisms}
- 47/268 . . . {Mechanisms for compensating warp tension}
- 47/27 . Drive or guide mechanisms for weft inserting
- 47/271 . . {Rapiers}
- 47/272 . . . {Rapier bands}
- 47/273 . . . {Rapier rods}
- 47/275 . . {Drive mechanisms}
- 47/276 . . . {Details or arrangement of sprocket wheels}
- 47/277 . . {Guide mechanisms ([for shuttles D03D 49/24](#))}
- 47/278 . . . {for pneumatic looms}
- 47/28 . wherein the weft itself is projected into the shed
- 47/30 . . by gas jet
- 47/3006 . . . {Construction of the nozzles}
- 47/3013 . . . . {Main nozzles}
- 47/302 . . . . {Auxiliary nozzles}
- 47/3026 . . . {Air supply systems}
- 47/3033 . . . . {Controlling the air supply}
- 47/304 . . . . {Controlling of the air supply to the auxiliary nozzles}
- 47/3046 . . . . . {Weft yarn selection}
- 47/3053 . . . . {Arrangements or lay out of air supply systems}

47/306	. . . . {Construction or details of parts, e.g. valves, ducts}	49/24	. Mechanisms for inserting shuttle in shed
47/3066	. . . {Control or handling of the weft at or after arrival}	49/26	. . Picking mechanisms, e.g. for propelling gripper shuttles or dummy shuttles
47/3073	. . . . {Detection means therefor}	49/28	. . . Driving mechanisms for the picker stick
47/308	. . . . {Stretching or holding the weft}	49/30	. . . . operated by cam
47/3086	. . . . {Weft removal (extraction of defective weft after stopping at definite point in weaving cycle <a href="#">D03D 51/085</a> )}	49/32	. . . . operated by previously-loaded spring or equivalent
47/3093	. . . {Displaying data}	49/34	. . . . operated by liquid or gas pressure
47/32	. . by liquid jet	49/36	. . . Pickers; Arresting means therefor ( <a href="#">check straps D03D 49/40</a> )
47/34	. Handling the weft between bulk storage and weft-inserting means	49/38	. . . Picking sticks; Arresting means therefor ( <a href="#">check straps D03D 49/40</a> )
47/342	. . {knot detection}	49/40	. . . Check straps; Lug straps; Similar strap components
47/345	. . {Rotating bobbins}	49/42	. . whereby the shuttle is propelled by liquid or gas pressure
47/347	. . {Yarn brakes ( <a href="#">D03D 47/364 takes precedence</a> )}	49/44	. . whereby the shuttle is propelled by electric or magnetic means
47/36	. . Measuring and cutting the weft	49/46	. . wherein the shuttle is pushed or pulled positively ( <a href="#">travelling-wave-shed looms D03D 47/26</a> )
47/361	. . . {Drum-type weft feeding devices}	49/48	. . positioning shuttle in readiness for picking
47/362	. . . . {with yarn retaining devices, e.g. stopping pins ( <a href="#">D03D 47/367 takes precedence</a> )}	49/50	. . Miscellaneous devices or arrangements concerning insertion of weft and not otherwise provided for
47/363	. . . . . {Construction or control of the yarn retaining devices}	49/52	. Shuttle boxes ( <a href="#">change-boxes D03D 43/00</a> )
47/364	. . . . . {Yarn braking means acting on the drum}	49/54	. . Braking means; Swells
47/365	. . . . . {Brushes}	49/56	. . . Shuttle relief mechanisms, i.e. reducing shuttle swell pressure before picking
47/366	. . . . . {Conical}	49/58	. Shuttle guards
47/367	. . . . {Monitoring yarn quantity on the drum}	49/60	. Construction or operation of slay
47/368	. . . {Air chamber storage devices}	49/62	. . Reeds mounted on slay
47/369	. . . {Communication systems}	49/64	. . wherein the slay dwells or moves slowly while the weft is being inserted
47/38	. . Weft pattern mechanisms	49/66	. . Shuttle races
47/39	. wherein cane, straw, slats, material for hair-cloth or similar material is handled	49/68	. Reeds or beat-up combs not mounted on the slay ( <a href="#">loose reed stop motion D03D 51/42</a> )
47/40	. Forming selvages	49/70	. Devices for cutting weft threads ( <a href="#">cutting weft in looms with automatic weft replenishment D03D 45/50</a> )
47/42	. . by knitting or interlacing loops of weft		
47/44	. . . with additional selvage thread		
47/46	. . by selvage shuttle or other device passing selvage thread through loop of weft ( <a href="#">by knitting D03D 47/44</a> )		
47/48	. . by inserting cut end of weft in next shed, e.g. by tucking, by blowing		
47/50	. . by adhesion		
<b>49/00</b>	<b>Details or constructional features not specially adapted for looms of a particular type</b>	<b>51/00</b>	<b>Driving, starting, or stopping arrangements; Automatic stop motions {loom control associated with fabric inspection on the loom <a href="#">D03J 1/007</a>}</b>
49/02	. Construction of loom framework	51/002	. {Avoiding starting marks}
	<b>WARNING</b>	51/005	. {Independent drive motors (independent frame drives for dobbies <a href="#">D03C 1/146</a> , for other shedding mechanisms <a href="#">D03C 13/02</a> )}
	This group is in the process of being reorganised to its subgroups	51/007	. {Loom optimisation}
49/022	. . {Protective hoods or curtains}	51/02	. General arrangements of driving mechanism
49/025	. . {Ground supports}	51/04	. Manual controls
49/027	. . {Arrangements or means for noise reduction}	51/06	. using particular methods of stopping
49/04	. Control of the tension in warp or cloth	51/08	. . stopping at definite point in weaving cycle, or moving to such point after stopping
49/06	. . Warp let-off mechanisms	51/085	. . . {Extraction of defective weft}
49/08	. . . Warp beam brakes	51/10	. . stopping suddenly
49/10	. . . Driving the warp beam to let the warp off	51/12	. for adjusting speed
49/12	. . Controlling warp tension by means other than let-off mechanisms	51/14	. for reducing speed temporarily
49/14	. . . Compensating for tension differences during shedding	51/16	. for varying speed cyclically
49/16	. . . Warp supplied by creel	51/18	. Automatic stop motions
49/18	. . Devices for indicating warp tension	51/20	. . Warp stop motions
49/20	. . Take-up motions; Cloth beams	51/22	. . . mechanical
49/22	. . Back rests; Lease rods; Brest beams	51/24	. . . . wherein droppers are suspended on individual warp threads or small groups of threads

- 51/26 . . . . Detector healds
- 51/28 . . . . electrical
- 51/30 . . . . wherein droppers are suspended on  
individual warp threads or small groups of  
threads
- 51/32 . . . . Detector healds
- 51/34 . . . Weft stop motions
- 51/36 . . . Centre weft forks
- 51/38 . . . Side weft forks
- 51/40 . . Shuttle stop motions
- 51/42 . . . Loose reed mechanisms
- 51/44 . . acting on defective operation of loom  
mechanisms
- 51/46 . . . of shedding mechanisms