

Symbol	Typ	Titel
<b>D</b>	<b>Sektion</b>	<b>TEXTILES; PAPER</b>
<b>D04</b>	<b>Klasse</b>	<b>BRAIDING; LACE-MAKING; KNITTING; TRIMMINGS; NON-WOVEN FABRICS</b>
<b>D04H</b>	<b>Unterklasse</b>	<b>MAKING TEXTILE FABRICS, e.g. FROM FIBRES OR FILAMENTARY MATERIAL (weaving D03; knitting D04B; braiding D04C; net-making D04G; sewing D05B; tufting D05C; finishing non-woven fabrics D06); FABRICS MADE BY SUCH PROCESSES OR APPARATUS, e.g. FELTS, NON-WOVEN FABRICS; COTTON-WOOL; WADDING (non-woven fabrics having an intermediate or external layer of a different kind, e.g. of woven fabric, B32B )</b>
		<b><u>Kinds or types of non-woven fabrics; Apparatus or processes for making such products</u></b>
<b>D04H 1/00</b>	<b>Hauptgruppe</b>	<b>Non-woven fabrics formed wholly or mainly of staple fibres or like relatively short fibres</b>
D04H 1/02	1-Punkt Untergruppe	. Cotton-wool; Wadding (carding D01G)
D04H 1/04	1-Punkt Untergruppe	. from fleeces or layers composed of fibres having existing or potential cohesive properties, e.g. natural fibres, prestretched or fibrillated artificial fibres (felting apparatus D04H 17/00)
D04H 1/06	2-Punkt Untergruppe	. . by treatment to produce shrinking, swelling, crimping, or curling of fibres (curling or crimping of fibres, filaments, or yarns D02G 1/00)
D04H 1/08	2-Punkt Untergruppe	. . and hardened by felting; Felts or felted products
D04H 1/10	3-Punkt Untergruppe	. . . Felts made from mixtures of fibres
D04H 1/12	4-Punkt Untergruppe	. . . . and incorporating artificial organic fibres
D04H 1/14	4-Punkt Untergruppe	. . . . and incorporating inorganic fibres
D04H 1/16	3-Punkt Untergruppe	. . . Laminated felts in which the separate layers are united by a felting process
D04H 1/20	3-Punkt Untergruppe	. . . Felts incorporating inserts or attachments, e.g. for ornamental purposes
D04H 1/22	3-Punkt Untergruppe	. . . Three-dimensional articles formed by felting processes
D04H 1/24	3-Punkt Untergruppe	. . . Covers felted on to three-dimensional articles
D04H 1/40	1-Punkt Untergruppe	. from fleeces or layers composed of fibres without existing or potential cohesive properties
D04H 1/42	2-Punkt Untergruppe	. . characterised by the use of certain kinds of fibres insofar as this use has no preponderant influence on the consolidation of the fleece
D04H 1/44	2-Punkt Untergruppe	. . the fleeces or layers being consolidated by mechanical means, e.g. by rolling
D04H 1/45	3-Punkt Untergruppe	. . . by forming intermeshing loops or stitches from some of the fibres (knitting D04B; sewing D05B) [4]
D04H 1/46	3-Punkt Untergruppe	. . . by needling or like operations to cause entanglement of fibres (D04H 1/45 takes precedence; needling machines D04H 18/00) [4]
D04H 1/48	4-Punkt Untergruppe	. . . . in combination with at least one other method of consolidation, e.g. with application of bonding agents
D04H 1/50	3-Punkt Untergruppe	. . . by treatment to produce shrinking, swelling, crimping, or curling of fibres (curling or crimping of fibres, filaments, or yarns D02G 1/00)
D04H 1/52	3-Punkt Untergruppe	. . . by applying or inserting filamentary binding elements (knitting D04B; sewing D05B)
D04H 1/54	2-Punkt Untergruppe	. . by welding together the fibres, e.g. by partially melting or dissolving (in combination with needling D04H 1/48)
D04H 1/56	3-Punkt Untergruppe	. . . in association with fibre formation, e.g. immediately following extrusion of staple fibres

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D04H 1/58	2-Punkt Untergruppe	. . by applying, incorporating, or activating chemical or thermoplastic bonding agents, e.g. adhesives (in combination with needling D04H 1/48)
D04H 1/60	3-Punkt Untergruppe	. . . the bonding agent being applied in dry state, e.g. thermo-activatable agents in solid or molten state, and heat being applied subsequently
D04H 1/62	4-Punkt Untergruppe	. . . . at spaced points or locations
D04H 1/64	3-Punkt Untergruppe	. . . the bonding agent being applied in wet state, e.g. chemical agents in dispersions or solutions
D04H 1/66	4-Punkt Untergruppe	. . . . at spaced points or locations (D04H 1/68 takes precedence)
D04H 1/68	4-Punkt Untergruppe	. . . . the bonding agent being applied in the form of foam
D04H 1/70	1-Punkt Untergruppe	. characterised by the method of forming fleeces or layers, e.g. reorientation of fibres (lap-forming devices D01G 25/00; paper web-making by wet methods D21F , D21H) [4]
D04H 1/72	2-Punkt Untergruppe	. . the fibres being randomly arranged
D04H 1/74	2-Punkt Untergruppe	. . the fibres being orientated, e.g. in parallel
<b>D04H 3/00</b>	<b>Hauptgruppe</b>	<b>Non-woven fabrics formed wholly or mainly of yarns or like filamentary material of substantial length</b>
D04H 3/02	1-Punkt Untergruppe	. characterised by the method of forming fleeces or layers, e.g. reorientation of yarns or filaments (lap-forming devices D01G 25/00; paper web-making by wet methods D21F , D21H) [4]
D04H 3/03	2-Punkt Untergruppe	. . at random
D04H 3/04	2-Punkt Untergruppe	. . in rectilinear paths, e.g. crossing at right angles
D04H 3/05	2-Punkt Untergruppe	. . in another pattern, e.g. zig-zag, sinusoidal
D04H 3/07	2-Punkt Untergruppe	. . otherwise than in a plane, e.g. in a tubular way
D04H 3/08	1-Punkt Untergruppe	. characterised by the method of strengthening or consolidating
D04H 3/10	2-Punkt Untergruppe	. . with bonds between yarns or filaments made mechanically (needling machines D04H 18/00; knitting D04B; sewing D05B)
D04H 3/12	2-Punkt Untergruppe	. . with filaments or yarns secured together by chemical or thermo-activatable bonding agents, e.g. adhesives, applied or incorporated in liquid or solid form
D04H 3/14	2-Punkt Untergruppe	. . with bonds between thermoplastic yarns or filaments produced by welding
D04H 3/16	3-Punkt Untergruppe	. . . with bonds between thermoplastic filaments produced in association with filament formation, e.g. immediately following extrusion [4]
<b>D04H 5/00</b>	<b>Hauptgruppe</b>	<b>Non-woven fabrics formed of mixtures of relatively-short fibres and yarns or like filamentary material of substantial length</b>
D04H 5/02	1-Punkt Untergruppe	. strengthened or consolidated by mechanical methods, e.g. needling (needling machines D04H 18/00; knitting D04B; sewing D05B)
D04H 5/04	1-Punkt Untergruppe	. strengthened or consolidated by applying or incorporating chemical or thermo-activatable bonding agents in solid or liquid form
D04H 5/06	1-Punkt Untergruppe	. strengthened or consolidated by welding-together thermoplastic fibres, filaments, or yarns
D04H 5/08	1-Punkt Untergruppe	. characterised by the method of forming fleeces or layers, e.g. reorientation of fibres or yarns (lap-forming devices D01G 25/00; paper web-making by wet methods D21F , D21H) [4]
<b>D04H 11/00</b>	<b>Hauptgruppe</b>	<b>Non-woven pile fabrics (layered products forming non-woven pile fabrics B32B; woven pile fabrics D03D; tufting D05C)</b>

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D04H 11/04	1-Punkt Untergruppe	. formed by zig-zag folding of a fleece or layer of staple fibres, filaments, or yarns, strengthened or consolidated at the folds
D04H 11/08	1-Punkt Untergruppe	. formed by creation of a pile on at least one surface of a non-woven fabric without addition of pile-forming material, e.g. by needling, by differential shrinking (needling machines D04H 18/00)
<b>D04H 13/00</b>	<b>Hauptgruppe</b>	<b>Other non-woven fabrics</b>
D04H 13/02	1-Punkt Untergruppe	. Production of non-woven fabrics by partial defibrillating of oriented thermoplastics films [4]
<b>D04H 17/00</b>	<b>Hauptgruppe</b>	<b>Felting apparatus</b>
D04H 17/10	1-Punkt Untergruppe	. for felting between rollers, e.g. heated rollers
D04H 17/12	2-Punkt Untergruppe	. . Multi-roller apparatus
<b>D04H 18/00</b>	<b>Hauptgruppe</b>	<b>Needling machines</b>