

# CPC COOPERATIVE PATENT CLASSIFICATION

## D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

#### D06 TREATMENT OF TEXTILES OR THE LIKE; LAUNDERING; FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

**D06M** TREATMENT, NOT PROVIDED FOR ELSEWHERE IN CLASS **D06**, OF FIBRES, THREADS, YARNS, FABRICS, FEATHERS, OR FIBROUS GOODS MADE FROM SUCH MATERIALS (surface treatment of fibres or filaments from glass, minerals or slags {also in the form of fabrics if the chemical aspects of the treatment are important} [C03C 25/00](#); treatment of textiles by mechanical means, [see D06B - D06J](#))

#### NOTES

1. In each of the groups [D06M 11/00](#) - [D06M 15/00](#), in the absence of an indication to the contrary, a substance is classified in the last appropriate place.
2. Within each one of main groups [D06M 11/00](#) - [D06M 15/00](#), a mixture of substances is classified at least according to the essential ingredient. If more than one ingredient is essential, the mixture is classified, in the absence of an indication to the contrary, according to the essential ingredient which belongs to the last appropriate place in the sequence of substances;
3. Treatment by mixtures of substances covered by two or more of main groups [D06M 11/00](#) - [D06M 15/00](#) is classified in each appropriate main group.
4. In this subclass, the treatment of textiles, not provided for elsewhere in class **D06**, is classified according to the following principles:
  - Treatment of textiles characterised by the treating agent in groups [D06M 11/00](#) - [D06M 16/00](#);
  - Treatment of textiles characterised by the process in group [D06M 23/00](#).

**7/00** {Treating fibres, threads, yarns, fabrics, or fibrous goods made of other substances with subsequent freeing of the treated goods from the treating medium, e.g. swelling, e.g. polyolefins ([D06M 10/00](#) takes precedence; treating fibres or filaments made of glass, mineral -, or slag wool [C03C](#); carbon fibres [D01F 11/10](#))}

**7/005** . {made of asbestos}

**10/00** Physical treatment of fibres, threads, yarns, fabrics, or fibrous goods made from such materials, e.g. ultrasonic, corona discharge, irradiation, electric currents, or magnetic fields; Physical treatment combined with treatment with chemical compounds or elements

**10/001** . {Treatment with visible light, infra-red or ultra-violet, X-rays}

**10/003** . {Treatment with radio-waves or microwaves}

**10/005** . {Laser beam treatment}

**10/006** . {Ultra-high-frequency heating}

**10/008** . {Treatment with radioactive elements or with neutrons, alpha, beta or gamma rays}

**10/02** . ultrasonic or sonic; Corona discharge

**10/025** . . {Corona discharge or low temperature plasma}

**10/04** . Physical treatment combined with treatment with chemical compounds or elements ([graft polymerisation using wave energy or particle radiation \[D06M 14/18\]\(#\) {; treatment with radioactive elements \[D06M 10/008\]\(#\)}](#))

**10/06** . . Inorganic compounds or elements

**10/08** . . Organic compounds

**10/10** . . . Macromolecular compounds

**11/00** Treating fibres, threads, yarns, fabrics, or fibrous goods made from such materials, with inorganic substances or complexes thereof; Such treatment combined with mechanical treatment, e.g. mercerising ([D06M 10/00](#) takes precedence; decorating textiles by local treatment [D06Q 1/00](#))

#### NOTES

1. If a compound used in the treatment is characterised by its cation, it is classified in group [D06M 11/00](#); metallisation by treatment with a metal salt, followed by reduction, is classified in group [D06M 11/83](#).
2. In this group, the following term is used with the meaning indicated:
  - "treatment" means, in the absence of an indication to the contrary, the treatment which leads to the end product, e.g. treatment with barium sulfate can mean treatment with barium chloride and with sulfuric acid in two separate steps

**11/01** . with hydrogen, water or heavy water; with hydrides of metals or complexes thereof; with boranes, diboranes, silanes, disilanes, phosphines, diphosphines, stibines, distibines, arsines, or diarsines or complexes thereof

**11/05** . . with water, e.g. steam; with heavy water

**11/07** . with halogens; with halogen acids or salts thereof; with oxides or oxyacids of halogens or salts thereof

**11/09** . . with free halogens or interhalogen compounds

- 11/11 . . with halogen acids or salts thereof
- 11/13 . . . Ammonium halides or halides of elements of Groups 1 or 11 of the Periodic System
- 11/155 . . . Halides of elements of Groups 2 or 12 of the Periodic System
- 11/17 . . . Halides of elements of Groups 3 or 13 of the Periodic System
- 11/20 . . . Halides of elements of Groups 4 or 14 of the Periodic System, e.g. zirconyl chloride
- 11/22 . . . Halides of elements of Groups 5 or 15 of the Periodic System
- 11/24 . . . Halides of elements of Groups 6 or 16 of the Periodic System, e.g. chromyl chloride
- 11/26 . . . Halides of elements of Group 7 of the Periodic System ([interhalogen compounds D06M 11/09](#))
- 11/28 . . . Halides of elements of Groups 8, 9, 10 or 18 of the Periodic System
- 11/30 . . with oxides of halogens, oxyacids of halogens or their salts, e.g. with perchlorates
- 11/32 . with oxygen, ozone, ozonides, oxides, hydroxides or percompounds; Salts derived from anions with an amphoteric element-oxygen bond ([with water or heavy water D06M 11/05](#); [with oxides or oxyacids of halogens D06M 11/30](#); [bleaching D06L](#))
- 11/34 . . with oxygen, ozone or ozonides
- 11/36 . . with oxides, hydroxides or mixed oxides; with salts derived from anions with an amphoteric element-oxygen bond
- 11/38 . . . Oxides or hydroxides of elements of Groups 1 or 11 of the Periodic System ([producing patterns by locally destroying or modifying the fibres by chemical action D06Q 1/02](#))
- 11/385 . . . . {[Saponification of cellulose-acetate](#)}
- 11/40 . . . . combined with, or in absence of, mechanical tension, e.g. slack mercerising
- 11/42 . . . . Oxides or hydroxides of copper, silver or gold
- 11/44 . . . Oxides or hydroxides of elements of Groups 2 or 12 of the Periodic System; Zincates; Cadmates
- 11/45 . . . Oxides or hydroxides of elements of Groups 3 or 13 of the Periodic System; Aluminates
- 11/46 . . . Oxides or hydroxides of elements of Groups 4 or 14 of the Periodic System; Titanates; Zirconates; Stannates; Plumbates
- 11/47 . . . Oxides or hydroxides of elements of Groups 5 or 15 of the Periodic System; Vanadates; Niobates; Tantalates; Arsenates; Antimonates; Bismuthates
- 11/48 . . . Oxides or hydroxides of chromium, molybdenum or tungsten; Chromates; Dichromates; Molybdates; Tungstates
- 11/485 . . . . {[Oxides or hydroxides of manganese](#); [Manganates](#) ([permanganates D06M 11/50](#))}
- 11/49 . . . Oxides or hydroxides of elements of Groups 8, 9, 10 or 18 of the Periodic System; Ferrates; Cobaltates; Nickelates; Ruthenates; Osmates; Rhodates; Iridates; Palladates; Platinates
- 11/50 . . with hydrogen peroxide or peroxides of metals; with persulfuric, permanganic, pernitric, percarbonic acids or their salts
- 11/51 . with sulfur, selenium, tellurium, polonium or compounds thereof ([with persulfuric acids or their salts D06M 11/50](#))
- 11/52 . . with selenium, tellurium, polonium or their compounds; with sulfur, dithionites or compounds containing sulfur and halogens, with or without oxygen; by sulfohalogenation with chlorosulfonic acid; by sulfohalogenation with a mixture of sulfur dioxide and free halogens
- 11/53 . . with hydrogen sulfide or its salts; with polysulfides
- 11/54 . . with sulfur dioxide; with sulfurous acid or its salts ([D06M 11/52 takes precedence](#))
- 11/55 . . with sulfur trioxide; with sulfuric acid or thiosulfuric acid or their salts
- 11/56 . . . Sulfates or thiosulfates other than of elements of Groups 3 or 13 of the Periodic System
- 11/57 . . . Sulfates or thiosulfates of elements of Groups 3 or 13 of the Periodic System, e.g. alums
- 11/58 . with nitrogen or compounds thereof, e.g. with nitrides ([with ammonium halides D06M 11/13](#))
- 11/59 . . with ammonia; with complexes of organic amines with inorganic substances
- 11/60 . . . Ammonia as a gas or in solution
- 11/61 . . . Liquid ammonia
- 11/62 . . . Complexes of metal oxides or complexes of metal salts with ammonia or with organic amines
- 11/63 . . with hydroxylamine or hydrazine
- 11/64 . . with nitrogen oxides; with oxyacids of nitrogen or their salts ([with pernitric acids or their salts D06M 11/50](#))
- 11/65 . . . Salts of oxyacids of nitrogen
- 11/66 . . with sulfamic acid or its salts
- 11/67 . . with cyanogen or compounds thereof, e.g. with cyanhydric acid, cyanic acid, isocyanic acid, thiocyanic acid, isothiocyanic acid or their salts, or with cyanamides; with carbamic acid or its salts ([with dicyanamides D06M 13/432](#))
- 11/68 . with phosphorus or compounds thereof, e.g. with chlorophosphonic acid or salts thereof ([with phosphines or diphosphines D06M 11/01](#); [with selenium or tellurium compounds D06M 11/52](#); [with polyphosphazene or derivatives thereof D06M 15/673](#))
- 11/69 . . with phosphorus; with halides or oxyhalides of phosphorus; with chlorophosphonic acid or its salts
- 11/70 . . with oxides of phosphorus; with hypophosphorous, phosphorous or phosphoric acids or their salts
- 11/71 . . . Salts of phosphoric acids
- 11/72 . . with metaphosphoric acids or their salts; with polyphosphoric acids or their salts; with perphosphoric acids or their salts
- 11/73 . with carbon or compounds thereof ([D06M 11/67 takes precedence](#))
- 11/74 . . with carbon or graphite; with carbides; with graphitic acids or their salts
- 11/75 . . with phosgene; with compounds containing both carbon and sulfur, e.g. thiophosgene ([with thiocyanic acid D06M 11/67](#); [with thiocarbamic acid D06M 13/425](#); [with thiourea D06M 13/432](#))
- 11/76 . . with carbon oxides or carbonates ([D06M 11/75 takes precedence](#); [with percarbonic acids or their salts D06M 11/50](#); [with urea D06M 13/432](#))
- 11/77 . with silicon or compounds thereof ([with silanes or disilanes D06M 11/01](#))

- 11/78 . . with silicon; with halides or oxyhalides of silicon; with fluorosilicates
- 11/79 . . with silicon dioxide, silicic acids or their salts
- 11/80 . . with boron or compounds thereof, e.g. borides (with boranes or diboranes [D06M 11/01](#); with boron carbides [D06M 11/74](#))
- 11/81 . . with boron; with boron halides; with fluoroborates
- 11/82 . . with boron oxides; with boric, meta- or perboric acids or their salts, e.g. with borax
- 11/83 . . with metals; with metal-generating compounds, e.g. metal carbonyls; Reduction of metal compounds on textiles (decorating textiles by locally metallising [D06Q 1/04](#))
- 11/84 . . combined with mechanical treatment (combined with mechanical tension, e.g. mercerising [D06M 11/40](#))
- 13/00 Treating fibres, threads, yarns, fabrics or fibrous goods made from such materials, with non-macromolecular organic compounds ([D06M 10/00](#), [D06M 14/00](#) take precedence; treatment with complexes of organic amines with inorganic substances [D06M 11/59](#)); Such treatment combined with mechanical treatment**
- NOTE**
- In this group the following term is used with the meaning indicated:
- "treatment" means, in the absence of an indication to the contrary, the treatment which leads to the end product, e.g. treatment with chloroacetic acid can mean treatment with chloroacetylchloride and saponification in two separate steps
- 13/005 . . {Compositions containing perfumes; Compositions containing deodorants}
- 13/02 . . with hydrocarbons
- 13/03 . . with unsaturated hydrocarbons, e.g. alkenes, or alkynes
- 13/07 . . . Aromatic hydrocarbons
- 13/08 . . with halogenated hydrocarbons
- 13/085 . . {cycloaliphatic}
- 13/10 . . with compounds containing oxygen
- 13/11 . . Compounds containing epoxy groups or precursors thereof
- 13/12 . . Aldehydes; Ketones
- 13/123 . . . Polyaldehydes; Polyketones
- 13/127 . . . Mono-aldehydes, e.g. formaldehyde; Monoketones
- 13/13 . . . Unsaturated aldehydes, e.g. acrolein; Unsaturated ketones; Ketenes {; [Diketenes](#)}
- 13/133 . . . Halogenated aldehydes; Halogenated ketones {; [Halogenated ketenes](#)}
- 13/137 . . Acetals, e.g. formals, or ketals
- 13/144 . . Alcohols; Metal alcoholates ([D06M 13/11](#) takes precedence)
- 13/148 . . . Polyalcohols, e.g. glycerol {or [glucose](#)}
- 13/152 . . having a hydroxy group bound to a carbon atom of a six-membered aromatic ring
- 13/156 . . . containing halogen atoms
- 13/165 . . Ethers ([D06M 13/11](#) takes precedence)
- 13/17 . . . Polyoxyalkyleneglycol ethers
- 13/175 . . . Unsaturated ethers, e.g. vinyl ethers
- 13/184 . . Carboxylic acids; Anhydrides, halides or salts thereof
- 13/1845 . . . {[Aromatic mono- or polycarboxylic acids](#)}
- 13/188 . . . Monocarboxylic acids; Anhydrides, halides or salts thereof {([D06M 13/1845](#) takes precedence)}
- 13/192 . . . Polycarboxylic acids; Anhydrides, halides or salts thereof {([D06M 13/1845](#) takes precedence)}
- 13/196 . . . Percarboxylic acids; Anhydrides, halides or salts thereof
- 13/203 . . . Unsaturated carboxylic acids; Anhydrides, halides or salts thereof
- 13/2035 . . . . {[Aromatic acids](#)}
- 13/207 . . . Substituted carboxylic acids, e.g. by hydroxy or keto groups; Anhydrides, halides or salts thereof
- 13/21 . . . . Halogenated carboxylic acids; Anhydrides, halides or salts thereof
- 13/213 . . . . Perfluoroalkyl carboxylic acids; Anhydrides, halides or salts thereof
- 13/217 . . . . Polyoxyalkyleneglycol ethers with a terminal carboxyl group; Anhydrides, halides or salts thereof
- 13/224 . . Esters of carboxylic acids; Esters of carbonic acid
- 13/2243 . . . {[Mono-, di-, or triglycerides](#)}
- 13/2246 . . . {[Esters of unsaturated carboxylic acids](#)}
- 13/228 . . . Cyclic esters, e.g. lactones
- 13/232 . . . Organic carbonates
- 13/236 . . . containing halogen atoms
- 13/238 . . . Tannins, e.g. gallotannic acids
- 13/244 . . with compounds containing sulfur or phosphorus
- 13/248 . . with compounds containing sulfur
- 13/252 . . . Mercaptans, thiophenols, sulfides or polysulfides, e.g. mercapto acetic acid; Sulfonium compounds
- 13/256 . . . Sulfonated compounds {esters thereof, e.g. [sultones](#)}
- 13/262 . . . Sulfated compounds {[thiosulfates](#)}
- 13/265 . . . containing halogen atoms
- 13/268 . . . Sulfones
- 13/272 . . . Unsaturated compounds containing sulfur atoms
- 13/275 . . . . Vinylthioethers
- 13/278 . . . . Vinylsulfonium compounds; Vinylsulfone or vinylsulfoxide compounds
- 13/282 . . with compounds containing phosphorus
- 13/285 . . . Phosphines; Phosphine oxides; Phosphine sulfides; Phosphinic or phosphinous acids or derivatives thereof
- 13/288 . . . Phosphonic or phosphonous acids or derivatives thereof
- 13/29 . . . . containing halogen atoms
- 13/292 . . . Mono-, di- or triesters of phosphoric or phosphorous acids; Salts thereof
- 13/295 . . . . containing polyglycol moieties; containing neopentyl moieties
- 13/298 . . . . containing halogen atoms
- 13/313 . . . Unsaturated compounds containing phosphorus atoms, e.g. vinylphosphonium compounds
- 13/322 . . with compounds containing nitrogen
- 13/325 . . Amines
- 13/3255 . . . {[Vinylamine; Allylamine](#)}

- 13/328 . . . the amino group being bound to an acyclic or cycloaliphatic carbon atom
- 13/33 . . . . containing halogen atoms
- 13/332 . . . Di- or polyamines
- 13/335 . . . having an amino group bound to a carbon atom of a six-membered aromatic ring
- 13/338 . . . Organic hydrazines; Hydrazinium compounds
- 13/342 . . . Amino-carboxylic acids; Betaines; Aminosulfonic acids; Sulfo-betaines
- 13/345 . . Nitriles
- 13/348 . . . unsaturated, e.g. acrylonitrile
- 13/35 . . Heterocyclic compounds
- 13/352 . . . having five-membered heterocyclic rings
- 13/355 . . . having six-membered heterocyclic rings
- 13/358 . . . . Triazines
- 13/364 . . . . Cyanuric acid; Isocyanuric acid; Derivatives thereof
- 13/368 . . Hydroxyalkylamines; Derivatives thereof, e.g. Kritchevsky bases
- 13/372 . . containing etherified or esterified hydroxy groups {Polyethers of low molecular weight}
- 13/376 . . Oximes
- 13/382 . . Aminoaldehydes
- 13/385 . . containing epoxy groups
- 13/388 . . Amine oxides
- 13/392 . . Nitroso compounds; Nitro compounds
- 13/395 . . Isocyanates
- 13/398 . . . containing fluorine atoms
- 13/402 . . Amides {imides, sulfamic acids}
- 13/405 . . . Acylated polyalkylene polyamines
- 13/408 . . . Acylated amines containing fluorine atoms; Amides of perfluoro carboxylic acids
- 13/41 . . . Amides derived from unsaturated carboxylic acids, e.g. acrylamide
- 13/412 . . . . N-methylolacrylamides
- 13/415 . . . Amides of aromatic carboxylic acids; Acylated aromatic amines
- 13/418 . . . Cyclic amides, e.g. lactams; Amides of oxalic acid
- 13/419 . . . Amides having nitrogen atoms of amide groups substituted by hydroxyalkyl or by etherified or esterified hydroxyalkyl groups
- 13/422 . . . Hydrazides
- 13/425 . . . Carbamic or thiocarbamic acids or derivatives thereof, e.g. urethanes (unsubstituted carbamic acid D06M 11/67)
- 13/428 . . . . containing fluorine atoms
- 13/432 . . . Urea, thiourea or derivatives thereof, e.g. biurets; Urea-inclusion compounds; Dicyanamides; {Carbodiimides;} Guanidines, e.g. dicyandiamides
- 13/435 . . . Semicarbazides
- 13/438 . . . Sulfonamides {; Sulfamic acids}
- 13/44 . . containing nitrogen and phosphorus
- 13/447 . . . Phosphonates or phosphinates containing nitrogen atoms
- 13/453 . . . Phosphates or phosphites containing nitrogen atoms
- 13/46 . . Compounds containing quaternary nitrogen atoms (hydrazinium compounds D06M 13/338; betaines, sulfo-betaines D06M 13/342)
- 13/461 . . . {Quaternised amin-amides from polyamines or heterocyclic compounds or polyamino-acids}
- 13/463 . . . derived from monoamines
- 13/467 . . . derived from polyamines
- 13/47 . . . derived from heterocyclic compounds
- 13/473 . . . . having five-membered heterocyclic rings
- 13/477 . . . . having six-membered heterocyclic rings
- 13/48 . . containing the ethylene imine ring
- 13/487 . . Aziridinylphosphines; Aziridinylphosphine-oxides or sulfides; Carbonylaziridinyl or carbonylbisaziridinyl compounds; Sulfonylaziridinyl or sulfonylbisaziridinyl compounds
- 13/493 . . . perfluorinated
- 13/50 . . with organometallic compounds; with organic compounds containing boron, silicon, selenium or tellurium atoms
- 13/503 . . without bond between a carbon atom and a metal or a boron, silicon, selenium or tellurium atom
- 13/507 . . . Organic silicon compounds without carbon-silicon bond
- 13/51 . . Compounds with at least one carbon-metal or carbon-boron, carbon-silicon, carbon-selenium, or carbon-tellurium bond
- 13/513 . . . with at least one carbon-silicon bond
- 13/5135 . . . . {Unsaturated compounds containing silicon atoms}
- 13/517 . . . . containing silicon-halogen bonds
- 13/52 . . combined with mechanical treatment (decorating textiles D06Q)
- 13/522 . . {Fulling}
- 13/525 . . Embossing; Calendering; Pressing (moulding D06M 23/14)
- 13/53 . . Cooling; Steaming or heating, e.g. in fluidised beds; with molten metals
- 13/535 . . Suction; Vacuum treatment; Degassing; Blowing
- 14/00 **Graft polymerisation of monomers containing carbon-to-carbon unsaturated bonds on to fibres, threads, yarns, fabrics, or fibrous goods made from such materials (on to unshaped polymers C08F 251/00 - C08F 292/00)**
- 14/02 . . on to materials of natural origin (D06M 14/18 takes precedence)
- 14/04 . . of vegetal origin, e.g. cellulose or derivatives thereof
- 14/06 . . of animal origin, e.g. wool or silk
- 14/08 . . on to materials of synthetic origin (D06M 14/18 takes precedence)
- 14/10 . . of macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
- 14/12 . . of macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- 14/14 . . . Polyesters
- 14/16 . . . Polyamides
- 14/18 . . using wave energy or particle radiation
- 14/20 . . on to materials of natural origin
- 14/22 . . . of vegetal origin, e.g. cellulose or derivatives thereof
- 14/24 . . . of animal origin, e.g. wool or silk
- 14/26 . . on to materials of synthetic origin
- 14/28 . . . of macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds

- 14/30 . . . of macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- 14/32 . . . . Polyesters
- 14/34 . . . . Polyamides
- 14/36 . . on to carbon fibres
- 15/00 Treating fibres, threads, yarns, fabrics, or fibrous goods made from such materials, with macromolecular compounds; Such treatment combined with mechanical treatment ([D06M 10/00](#), [D06M 14/00](#) take precedence; {treatment with inorganic polyphosphates [D06M 11/72](#)})**
- NOTE**
- In this group, the following term is used with the meaning indicated:
- "treatment" means, in the absence of an indication to the contrary, the treatment which leads to the end product, e.g.
    - a. treatment with polyvinylalcohol can mean treatment with polyvinylacetate and subsequent saponification in a separate step
    - b. treatment with aminoplast can mean the delayed cure process or the treatment with precondensation products, or with e.g. urea and with formaldehyde in two separate steps
- 15/01 . . with natural macromolecular compounds or derivatives thereof ([with natural rubber or derivatives thereof D06M 15/693](#))
- 15/03 . . Polysaccharides or derivatives thereof
- 15/035 . . . {Polymeric alcohol xanthates}
- 15/05 . . . Cellulose or derivatives thereof
- 15/055 . . . . with the residual liquors derived of the sulfatic process for the preparation of cellulose
- 15/07 . . . . Cellulose esters
- 15/09 . . . . Cellulose ethers
- 15/11 . . . Starch or derivatives thereof
- 15/13 . . . Alginic acid or derivatives thereof
- 15/15 . . Proteins or derivatives thereof
- 15/155 . . . {Treatment in the presence of salts derived from amphoteric metal hydroxides}
- 15/17 . . Natural resins, resinous alcohols, resinous acids, or derivatives thereof
- 15/19 . . with synthetic macromolecular compounds ([with synthetic rubber D06M 15/693](#))
- 15/195 . . {sulfated or sulfonated}
- 15/21 . . Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
- 15/227 . . . of hydrocarbons, or reaction products thereof, e.g. afterhalogenated or sulfochlorinated
- 15/233 . . . . aromatic, e.g. styrene
- 15/244 . . . of halogenated hydrocarbons ([afterhalogenated hydrocarbons D06M 15/227](#))
- 15/248 . . . . containing chlorine
- 15/252 . . . . containing bromine
- 15/256 . . . . containing fluorine
- 15/263 . . . of unsaturated carboxylic acids; Salts or esters thereof
- 15/267 . . . . of unsaturated carboxylic esters having amino or quaternary ammonium groups
- 15/27 . . . . of alkylpolyalkylene glycol esters of unsaturated carboxylic acids
- 15/273 . . . . of unsaturated carboxylic esters having epoxy groups
- 15/2735 . . . . . {of unsaturated carboxylic esters having mercapto groups}
- 15/277 . . . . containing fluorine
- 15/285 . . . of unsaturated carboxylic acid amides or imides
- 15/29 . . . . containing a N-methylol group or an etherified N-methylol group; containing a N-aminomethylene group; containing a N-sulfidomethylene group
- 15/295 . . . . containing fluorine
- 15/31 . . . of unsaturated nitriles
- 15/327 . . . of unsaturated alcohols or esters thereof
- 15/33 . . . . Esters containing fluorine
- 15/333 . . . . of vinyl acetate; Polyvinylalcohol
- 15/3335 . . . . . {fluorinated}
- 15/347 . . . of unsaturated ethers, acetals, hemiacetals, ketones or aldehydes
- 15/353 . . . . containing fluorine
- 15/356 . . . of other unsaturated compounds containing nitrogen, sulfur, silicon or phosphorus atoms
- 15/3562 . . . . {containing nitrogen}
- 15/3564 . . . . {containing phosphorus}
- 15/3566 . . . . {containing sulfur}
- 15/3568 . . . . {containing silicon}
- 15/37 . . Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- 15/39 . . . Aldehyde resins; Ketone resins; Polyacetals
- 15/41 . . . . Phenol-aldehyde or phenol-ketone resins
- 15/412 . . . . . {sulfonated}
- 15/415 . . . . . modified by compounds containing phosphorus
- 15/423 . . . . . Amino-aldehyde resins
- 15/427 . . . . . modified by alkoxylated compounds or alkylene oxides
- 15/429 . . . . . modified by compounds containing sulfur
- 15/43 . . . . . modified by phosphorus compounds
- 15/431 . . . . . by phosphines or phosphine oxides; by oxides or salts of the phosphonium radical
- 15/432 . . . . . by phosphonic acids or derivatives thereof
- 15/433 . . . . . by phosphoric acids
- 15/437 . . . . . containing fluorine
- 15/45 . . . . Use of special catalysts
- 15/507 . . . Polyesters
- 15/5075 . . . . {containing sulfonic groups}
- 15/51 . . . . Unsaturated polymerisable polyesters
- 15/513 . . . . Polycarbonates
- 15/53 . . . Polyethers ([polyacetals D06M 15/39](#))
- 15/55 . . . Epoxy resins
- 15/555 . . . . modified by compounds containing phosphorus
- 15/564 . . . Polyureas, polyurethanes or other polymers having ureide or urethane links; Precondensation products forming them
- 15/568 . . . . Reaction products of isocyanates with polyethers
- 15/572 . . . . Reaction products of isocyanates with polyesters or polyesteramides

- 15/576 . . . . containing fluorine
- 15/579 . . . . modified by compounds containing phosphorus
- 15/59 . . . Polyamides; Polyimides
- 15/592 . . . . made from polymerised unsaturated fatty acids and polyamines
- 15/595 . . . . Derivatives obtained by substitution of a hydrogen atom of the carboxamide radical
- 15/598 . . . . modified by compounds containing phosphorus
- 15/61 . . . Polyamines {polyimines}
- 15/63 . . . containing sulfur in the main chain, e.g. polysulfones
- 15/643 . . . containing silicon in the main chain
- 15/6433 . . . . {containing carboxylic groups}
- 15/6436 . . . . {containing amino groups}
- 15/647 . . . . containing polyether sequences
- 15/65 . . . . containing epoxy groups
- 15/651 . . . . . {comprising carboxylic groups}
- 15/652 . . . . . {comprising amino groups}
- 15/653 . . . . modified by isocyanate compounds
- 15/657 . . . . containing fluorine
- 15/667 . . . containing phosphorus in the main chain {inorganic polyphosphates D06M 11/72}
- 15/673 . . . . containing phosphorus and nitrogen in the main chain
- 15/687 . . . containing atoms other than phosphorus, silicon, sulfur, nitrogen, oxygen or carbon in the main chain
- 15/693 . with natural or synthetic rubber, or derivatives thereof
- 15/70 . combined with mechanical treatment (decorating textiles D06Q)
- 15/705 . . Embossing; Calendering; Pressing (moulding D06M 23/14)
- 15/71 . . Cooling; Steaming or heating, e.g. in fluidised beds; with molten metals
- 15/715 . . Suction; Vacuum treatment; Degassing; Blowing
- 16/00 Biochemical treatment of fibres, threads, yarns, fabrics, or fibrous goods made from such materials, e.g. enzymatic**
- 16/003 . {with enzymes or microorganisms}
- 16/006 . {with wool-protecting agents; with anti-moth agents}
- 17/00 Producing multi-layer textile fabrics**
- 17/02 . by applying cellulose derivatives as adhesives
- 17/04 . by applying synthetic resins as adhesives
- 17/06 . . Polymers of vinyl compounds
- 17/08 . . Polyamides {polyimides}
- 17/10 . . Polyurethanes {polyurea}
- 19/00 Treatment of feathers**
- 23/00 Treatment of fibres, threads, yarns, fabrics or fibrous goods made from such materials, characterised by the process**
- 23/005 . {Applying monomolecular films on textile products like fibres, threads or fabrics}
- 23/02 . Processes in which the treating agent is releasably affixed or incorporated into a dispensing means
- 23/04 . Processes in which the treating agent is applied in the form of a foam

- 23/06 . Processes in which the treating agent is dispersed in a gas, e.g. aerosols (aerosol compositions C09K 3/30)
- 23/08 . Processes in which the treating agent is applied in powder or granular form (adhesives for multi-layer textile fabrics D06M 17/00; decorating textiles D06Q)
- 23/10 . Processes in which the treating agent is dissolved or dispersed in organic solvents; Processes for the recovery of organic solvents thereof
- 23/105 . . {Processes in which the solvent is in a supercritical state}
- 23/12 . Processes in which the treating agent is incorporated in microcapsules (making microcapsules B01J 13/02)
- 23/14 . Processes for the fixation or treatment of textile materials in three-dimensional forms
- 23/16 . Processes for the non-uniform application of treating agents, e.g. one-sided treatment; Differential treatment (decorating textiles D06Q)
- 23/18 . . for the chemical treatment of borders of fabrics or knittings; for the thermal or chemical fixation of cuttings, seams or fibre ends

## **2101/00 Chemical constitution of the fibres, threads, yarns, fabrics or fibrous goods made from such materials, to be treated**

### **NOTES**

1. This subclass constitutes an internal scheme for indexing only.
2. The indexing codes relate to the fibres to be treated and are to be used with the groups D06M 11/00, D06M 13/00, D06M 15/00, D06M 16/00 and D06M 23/00

### **Examples:**

- the swelling of cellulose with alkaline hydroxides is classified and indexed in D06M 11/38 // D06M 2101/06
- the treatment of cellulose with amines is classified and indexed in D06M 13/325 // D06M 2101/06
- the treatment of polyester fibres with polyester is classified and indexed in D06M 15/507 // D06M 2101/32
- the treatment of wool with pepsin is classified and indexed in D06M 16/00 // D06M 2101/12
- the treatment of cellulose with silicon tetrachloride in the form of a foam is classified and indexed in D06M 11/78, D06M 23/04 // D06M 2101/06.

- 2101/005 . {Asbestos fibres}

### **NOTE**

Blends of fibres are indexed according to each constituent fibre

- 2101/02 . Natural fibres, other than mineral fibres
- 2101/04 . . Vegetal fibres
- 2101/06 . . . cellulosic
- 2101/08 . . . . Esters or ethers of cellulose
- 2101/10 . . Animal fibres
- 2101/12 . . . Keratin fibres or silk
- 2101/14 . . . Collagen fibres
- 2101/16 . Synthetic fibres, other than mineral fibres

## D06M

- 2101/18 . . Synthetic fibres consisting of macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
- 2101/20 . . . Polyalkenes, polymers or copolymers of compounds with alkenyl groups bonded to aromatic groups
- 2101/22 . . . Polymers or copolymers of halogenated mono-olefins
- 2101/24 . . . Polymers or copolymers of alkenylalcohols or esters thereof; Polymers or copolymers of alkenylethers, acetals or ketones
- 2101/26 . . . Polymers or copolymers of unsaturated carboxylic acids or derivatives thereof
- 2101/28 . . . . Acrylonitrile; Methacrylonitrile
- 2101/30 . . Synthetic polymers consisting of macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- 2101/32 . . . Polyesters
- 2101/34 . . . Polyamides
- 2101/36 . . . . Aromatic polyamides
- 2101/38 . . . Polyurethanes
- 2101/40 . Fibres of carbon
- 2200/00** **Functionality of the treatment composition and/or properties imparted to the textile material**
- 2200/01 . Stain or soil resistance
- 2200/05 . Lotus effect
- 2200/10 . Repellency against liquids
- 2200/11 . . Oleophobic properties
- 2200/12 . . Hydrophobic properties
- 2200/20 . Treatment influencing the crease behaviour, the wrinkle resistance, the crease recovery or the ironing ease
- 2200/25 . Resistance to light or sun, i.e. protection of the textile itself as well as UV shielding materials or treatment compositions therefor; Anti-yellowing treatments
- 2200/30 . Flame or heat resistance, fire retardancy properties
- 2200/35 . Abrasion, pilling or fibrillation resistance
- 2200/40 . Reduced friction resistance, lubricant properties; Sizing compositions
- 2200/45 . Shrinking resistance, anti-felting properties
- 2200/50 . Modified hand or grip properties; Softening compositions
- 2400/00** **Specific information on the treatment or the process itself not provided in [D06M 23/00-D06M 23/18](#)**
- 2400/01 . Creating covalent bondings between the treating agent and the fibre
- 2400/02 . Treating compositions in the form of solgel or aerogel