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

D06P    DYEING OR PRINTING TEXTILES; DYEING LEATHER, FURS OR SOLID MACROMOLECULAR SUBSTANCES IN ANY FORM

NOTE
This subclass does not cover treatment of textiles by purely mechanical means, which is covered by subclasses D06B, D06C.

WARNINGS
1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
   - D06P 3/84 covered by D06P 3/82
   - D06P 3/85 covered by D06P 3/82
   - D06P 3/852 covered by D06P 3/82
   - D06P 3/86 covered by D06P 3/82
   - D06P 3/87 covered by D06P 3/82
   - D06P 3/872 covered by D06P 3/82
   - D06P 3/874 covered by D06P 3/82
   - D06P 5/24 - D06P 5/28 covered by D06P 5/003 and s.gr.
2. [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.]

1/00    General processes of dyeing or printing textiles, or general processes of dyeing leather, furs, or solid macromolecular substances in any form, classified according to the dyes, pigments, or auxiliary substances employed

1/0004 . . (General aspects of dyeing)
1/0008 . . [Dyeing processes in which the dye is not specific (waste liquors)]
1/0012 . . [Effecting dyeing to obtain luminescent or phosphorescent dyings]
1/0016 . . [Dye baths containing a dyeing agent in a special form such as for instance in melted or solid form, as a floating film or gel, spray or aerosol, or atomised dyes]
1/002 . . [Processing by repeated dyeing, e.g. in different baths]
1/0024 . . [Dyeing and bleaching in one process]
1/0028 . . [Dyeing with a coacervate system]
1/0032 . . [Determining dye recipes and dyeing parameters; Colour matching or monitoring]
1/0036 . . [Dyeing and sizing in one process]
1/004 . . [Dyeing with phototropic dyes; Obtaining camouflage effects]
1/0044 . . [Dyeing with a dye in volatilised form]
1/0048 . . [Converting dyes in situ in a non-appropriate form by hydrolysis, saponification, reduction with split-off of a substituent]
1/0052 . . [Dyeing with polymeric dyes]
1/0056 . . [Dyeing with polymeric dyes involving building the polymeric dyes on the fibres (dyes per se C09B)]
Phthalocyanine dyes without vatting (D06P 1/38; D06P 1/40 take precedence)

Phthalocyanine dyes prepared in situ

using dispersed, e.g. acetate, dyestuffs

using vat dyestuffs (including indigo)

[Dyeing systems; Reducing catalysts]

[Oxidising agents]

using vat dyes in unreduced pigment state

using acid vat method

[Specific dyes not provided for in groups D06P 1/228 - D06P 1/28]

[Indigo]

Anthraquinone dyes (or anthracene nucleus containing vat dyes)

Phthalocyanine dyes

Esters of vat dyestuffs

using sulfur dyes

[SO₃,H-groups containing dyes]

using oxidation dyes

using natural dyestuffs

using mordant dyes (i.e. metallisable dyes)

using reactive dyes

reactive group directly attached to heterocyclic group

reactive group not directly attached to heterocyclic group

using acid dyes

using acid dyes without azo groups

using basic dyes

using basic dyes without azo groups

using insoluble pigments or auxiliary substances, e.g. binders

[Use of auxiliary substances before, during or after dyeing or printing]

using compositions containing natural macromolecular substances or derivatives thereof

Derivatives of carbohydrates

Derivatives of cellulose

using compositions containing synthetic macromolecular substances (D06P 1/60 takes precedence)

Macromolecular compounds obtained by reactions involving only carbon-to-carbon unsaturated bonds

[Polymers of unsaturated compounds containing no COOH groups or functional derivatives thereof]

[Polymers of unsaturated hydrocarbons, e.g. polystyrene polyalkylene]

[Polymers of unsaturated alcohols, e.g. PVA]

[Polymers of unsaturated halides, e.g. PVC]  

[Polymers of unsaturated N-containing compounds]

[Polymers of unsaturated carboxylic acids or functional derivatives thereof]

[(Meth)acrylic acid]

[Macromolecular compounds obtained otherwise than by reactions involving only unsaturated carbon-to-carbon bonds]

[Polypesters; Polycarbonates; Alkyd resins]

[Polyamides; Polyiimides; Polylactames; Polyalkyleneimines]

Polyurethanes; Polyurea; Polyguanides

[Containing Si-atoms]

Substances with reactive groups together with crosslinking agents

Condensation products or precondensation products prepared with aldehydes

[Addition products of amines and alkylene oxides or oxiranes]

Polyethers without nitrogen

[Addition products of hydroxyl groups-containing compounds with oxiranes]

[from araliphatic or aliphatic alcohols]

[from aromatic alcohols or from phenols, naphthols]

Condensation products of esters, acids, oils, oxyacids with oxiranes

Polymerisation products of glycols, e.g. Carbowax, Pluronics

using compositions containing low-molecular-weight organic compounds with sulfate, sulfonate, [sulfenic or sulfinic] groups

[Compounds without nitrogen]

[Sulfonic acids or their salts]

[Aliphatic, araliphatic or cycloaliphatic]

[Aromatic]

[Sulfocarboxylic acids]

[Sulfates]

[Compounds containing nitrogen]

[Compounds containing low-molecular-weight organic compounds without sulfate or sulfonate groups]

[Compounds containing nitrogen]

[Compounds containing nitrile groups]

[Compounds containing nitro or nitroso groups]

[Compounds containing azide or oxime groups]

[Compounds containing isocyanate or isothiocyanate groups]

[Compounds containing hydrazine or azo groups]

[Compounds containing sulfonamide groups]

[Compounds containing aminoxide groups]

[bound to a six-membered aromatic carbocyclic ring]

Aliphatic, araliphatic or cycloaliphatic compounds containing amino groups

Nitrogen-containing carboxylic acids or their salts

Compounds containing carbonamide, thiocarbonamide or guanyl groups

[(Thio)urea or (cyclic) derivatives]
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/6492</td>
<td>[(Thio)urethanes; (Di)(thio)carboxylic acid derivatives; Thiuramdisulfide]</td>
</tr>
<tr>
<td>1/6493</td>
<td>[Carbodiimides (=N=C=N=)]</td>
</tr>
<tr>
<td>1/6494</td>
<td>{Compounds containing a guanyl group R=C-N=, e.g. (bi)guanidine, dicyandiamid amidines}</td>
</tr>
<tr>
<td>1/6495</td>
<td>{Compounds containing carbonamide - RCON= (R=H or hydrocarbons)}</td>
</tr>
<tr>
<td>1/6496</td>
<td>{Condensation products from carboxylic acids and hydroxalkyl amine (Kritchewski bases)}</td>
</tr>
<tr>
<td>1/6497</td>
<td>{Amides of di- or polyamines; Acylated polyamines}</td>
</tr>
<tr>
<td>1/6498</td>
<td>{Compounds containing -CONCO-, e.g. phthalimides, hydantoine; Compounds containing RCONHSO ( R=H ) or hydrocarbon)</td>
</tr>
<tr>
<td>1/651</td>
<td>Compounds without nitrogen</td>
</tr>
<tr>
<td>1/65106</td>
<td>[Oxygen-containing compounds]</td>
</tr>
<tr>
<td>1/65112</td>
<td>{Compounds containing aldehyde or ketone groups}</td>
</tr>
<tr>
<td>1/65118</td>
<td>{Compounds containing hydroxyl groups}</td>
</tr>
<tr>
<td>1/65125</td>
<td>{Compounds containing ester groups}</td>
</tr>
<tr>
<td>1/65131</td>
<td>{Compounds containing ether or acetal groups}</td>
</tr>
<tr>
<td>1/65137</td>
<td>{Compounds containing peroxide or ozonide groups}</td>
</tr>
<tr>
<td>1/65143</td>
<td>{Compounds containing acid anhydride or acid halide groups}</td>
</tr>
<tr>
<td>1/6515</td>
<td>[Hydrocarbons]</td>
</tr>
<tr>
<td>1/65156</td>
<td>{Halogen-containing hydrocarbons}</td>
</tr>
<tr>
<td>1/65162</td>
<td>{Hydrocarbons without halogen}</td>
</tr>
<tr>
<td>1/65168</td>
<td>{Sulfur-containing compounds}</td>
</tr>
<tr>
<td>1/65175</td>
<td>{Compounds containing thiaoaldehyde or thioacetone groups}</td>
</tr>
<tr>
<td>1/65181</td>
<td>{Compounds containing thiol groups}</td>
</tr>
<tr>
<td>1/65187</td>
<td>{Compounds containing sulfide or disulfide groups}</td>
</tr>
<tr>
<td>1/65193</td>
<td>{Compounds containing sulfite or sulfone groups}</td>
</tr>
<tr>
<td>1/653</td>
<td>Nitrogen-free carboxylic acids or their salts ([sulfocarboxylic acids ( D06P 1/626 )])</td>
</tr>
<tr>
<td>1/6533</td>
<td>[Aliphatic, araliphatic or cycloaliphatic]</td>
</tr>
<tr>
<td>1/6536</td>
<td>[Aromatic]</td>
</tr>
<tr>
<td>1/655</td>
<td>Compounds containing ammonium groups</td>
</tr>
<tr>
<td>1/6553</td>
<td>{Compounds containing sulfonium groups}</td>
</tr>
<tr>
<td>1/6556</td>
<td>{Compounds containing phosphonium groups}</td>
</tr>
<tr>
<td>1/66</td>
<td>containing quaternary ammonium groups</td>
</tr>
<tr>
<td>1/667</td>
<td>Organo-phosphorus compounds</td>
</tr>
<tr>
<td>1/673</td>
<td>Inorganic compounds</td>
</tr>
<tr>
<td>1/67308</td>
<td>{Hydroxylamine or derivatives thereof}</td>
</tr>
<tr>
<td>1/67316</td>
<td>{Acids}</td>
</tr>
<tr>
<td>1/67325</td>
<td>{Complex acids, e.g. phosphomolybdic, phosphotungstic, molybdotungstic}</td>
</tr>
<tr>
<td>1/67333</td>
<td>{Salts or hydroxides (hydroxylamines ( D06P 1/6308 ))}</td>
</tr>
<tr>
<td>1/67341</td>
<td>{of elements different from the alkaline or alkaline-earths or metals or with anions containing those elements (( D06P 1/67383 ) takes precedence)}</td>
</tr>
<tr>
<td>1/6735</td>
<td>{of alkaline or alkaline-earth metals with anions different from those provided for in ( D06P 1/67341 )}</td>
</tr>
<tr>
<td>1/67358</td>
<td>{Halides or oxyhalides}</td>
</tr>
<tr>
<td>1/67366</td>
<td>{Phosphates or polyphosphates}</td>
</tr>
<tr>
<td>1/67375</td>
<td>{with sulfur-containing anions (sulfates ( D06P 1/6735 ))}</td>
</tr>
<tr>
<td>1/67383</td>
<td>{containing silicon}</td>
</tr>
<tr>
<td>1/67391</td>
<td>{Salts or oxidising-compounds mixtures}</td>
</tr>
<tr>
<td>1/81</td>
<td>using dyes dissolved in inorganic solvents</td>
</tr>
<tr>
<td>1/90</td>
<td>using dyes dissolved in organic solvents or aqueous emulsions thereof (( D06P 1/94 ) takes precedence)</td>
</tr>
<tr>
<td>2001/901</td>
<td>{Hydrocarbons}</td>
</tr>
<tr>
<td>2001/903</td>
<td>{Halogenated hydrocarbons}</td>
</tr>
<tr>
<td>2001/905</td>
<td>{Non-halogenated hydrocarbons}</td>
</tr>
<tr>
<td>2001/906</td>
<td>{Solvents other than hydrocarbons}</td>
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<tr>
<td>1/908</td>
<td>using specified dyes</td>
</tr>
<tr>
<td>1/92</td>
<td>in organic solvents</td>
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<tr>
<td>1/922</td>
<td>[hydrocarbons]</td>
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<tr>
<td>1/924</td>
<td>{Halogenated hydrocarbons}</td>
</tr>
<tr>
<td>1/926</td>
<td>{Non-halogenated hydrocarbons}</td>
</tr>
<tr>
<td>1/928</td>
<td>{Solvents other than hydrocarbons}</td>
</tr>
<tr>
<td>1/94</td>
<td>using dyes dissolved in solvents which are in the supercritical state</td>
</tr>
<tr>
<td>1/96</td>
<td>Dyeing characterised by a short bath ratio</td>
</tr>
<tr>
<td>1/965</td>
<td>{Foam dyeing (mechanical features ( D06B 19/0094 ))}</td>
</tr>
<tr>
<td>3/00</td>
<td>Special processes of dyeing or printing textiles, or dyeing leather, furs, or solid macromolecular substances in any form, classified according to the material treated</td>
</tr>
<tr>
<td>3/001</td>
<td>{using acid dyes}</td>
</tr>
<tr>
<td>3/002</td>
<td>{basic dyes}</td>
</tr>
<tr>
<td>3/003</td>
<td>{using vat or sulfur dyes}</td>
</tr>
<tr>
<td>3/004</td>
<td>{using dispersed dyes}</td>
</tr>
<tr>
<td>3/005</td>
<td>{using metallisable or mordant dyes}</td>
</tr>
<tr>
<td>3/006</td>
<td>{using polymeric dyes}</td>
</tr>
<tr>
<td>3/007</td>
<td>{preparing dyes in situ}</td>
</tr>
<tr>
<td>3/008</td>
<td>{using reactive dyes}</td>
</tr>
<tr>
<td>3/02</td>
<td>Material containing basic nitrogen</td>
</tr>
<tr>
<td>3/021</td>
<td>{using acid dyes}</td>
</tr>
<tr>
<td>3/022</td>
<td>{basic dyes}</td>
</tr>
<tr>
<td>3/023</td>
<td>{using vat or sulfur dyes}</td>
</tr>
<tr>
<td>3/024</td>
<td>{using dispersed dyes}</td>
</tr>
<tr>
<td>3/025</td>
<td>{using metallised dyes}</td>
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<tr>
<td>3/026</td>
<td>{using polymeric dyes}</td>
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<tr>
<td>3/027</td>
<td>{preparing dyes in situ}</td>
</tr>
<tr>
<td>3/028</td>
<td>{using reactive dyes}</td>
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<tr>
<td>3/04</td>
<td>containing amide groups</td>
</tr>
<tr>
<td>3/041</td>
<td>{using basic dyes}</td>
</tr>
<tr>
<td>3/042</td>
<td>{using vat or sulfur dyes}</td>
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<tr>
<td>3/043</td>
<td>{using dispersed dyes}</td>
</tr>
<tr>
<td>3/045</td>
<td>{dyeing and degumming silk}</td>
</tr>
<tr>
<td>3/046</td>
<td>{using metallisable or mordant dyes}</td>
</tr>
<tr>
<td>3/047</td>
<td>{using polymeric dyes}</td>
</tr>
<tr>
<td>3/048</td>
<td>{preparing non-azo dyes on the material}</td>
</tr>
<tr>
<td>3/06</td>
<td>using acid dyes</td>
</tr>
<tr>
<td>3/08</td>
<td>using oxidation dyes</td>
</tr>
<tr>
<td>3/10</td>
<td>using reactive dyes</td>
</tr>
<tr>
<td>3/12</td>
<td>Preparing azo dyes on the material</td>
</tr>
<tr>
<td>3/14</td>
<td>Wool</td>
</tr>
<tr>
<td>3/141</td>
<td>{using vat or sulfur dyes}</td>
</tr>
<tr>
<td>3/143</td>
<td>{using dispersed dyes}</td>
</tr>
<tr>
<td>3/145</td>
<td>{using polymeric dyes}</td>
</tr>
</tbody>
</table>
Preparing azo dyes on the material using dispersed dyestuffs

- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using metallisable or mordant dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Preparing azo dyes on the material using dispersed dyestuffs

- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using metallisable or mordant dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Preparing azo dyes on the fibre using mordant dyes or metallisable dyes

- Using direct dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Cellulose triacetate

- Preparing azo dyes on the material using dispersed dyestuffs
- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dies
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Natural or regenerated cellulose

- Preparing azo dyes on the material using dispersed dyestuffs
- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Polyesters

- Preparing azo dyes on the material using dispersed dyestuffs
- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Cellulose acetate

- Preparing azo dyes on the material using dispersed dyestuffs
- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Preparation of azo dyes on the material using dispersed dyestuffs

- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using metallisable or mordant dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Preparation of azo dyes on the fibre using mordant dyes or metallisable dyes

- Using direct dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes

Cellulose triacetate

- Preparing azo dyes on the material using dispersed dyestuffs
- Using reactive dyes
- Preparing non-azo dyes on the material
- Using polymeric dyes
- Using vat or sulfur dyes
- Using basic dyes
- Using acid dyes
dyeing leather, furs, or solid macromolecular materials by chemical means}

{ Locally enhancing dye affinity of a textile material

{ Special chemical aspects of printing textile materials }

{ Using non-subliming dyes }

{ using subliming dyes }

{ on resin-treated fibres }

{ using specified dyes }

{ using non-subliming dyes }

{ Migrating dyes }

{ Non-migrating dyes }

NOTE

In groups D06P 5/04 - D06P 5/10 a compound is always classified in the last appropriate place.

5/04 . . . with organic compounds

5/06 . . . containing nitrogen

5/08 . . . macromolecular

5/10 . . . with compounds containing metal

5/12 . Reserving parts of the material before dyeing or printing (; Locally decreasing dye affinity by chemical means)

5/13 . Fugitive dyeing or stripping dyes

5/131 . . { with acids or bases }

5/132 . . { with oxidants }

5/134 . . { with reductants }

5/135 . . { with combined acids or bases + oxidants + reductants means }

5/137 . . { with other compounds }

5/138 . . { fugitive dyeing }

5/15 . Locally discharging the dyes

5/151 . . { with acids or bases }

5/153 . . { with oxidants }

5/155 . . { with reductants }

5/156 . . { with combined A+B+C means }

5/158 . . { with other compounds }

5/17 . . . Azo dyes

5/20 . Physical treatments affecting dyeing, e.g. ultrasonic or electric

5/2005 . . { Treatments with alpha, beta, gamma or other rays, e.g. stimulated rays }

5/2011 . . { Application of vibrations, pulses or waves for non-thermic purposes }

5/2016 . . { Application of electric energy }

5/2022 . . { Textile treatments at reduced presion, i.e. lower than 1 atm }

5/2027 . . { before dyeing }

5/2033 . . { during dyeing }

5/2038 . . { after dyeing }

5/2044 . . { Textile treatments at a pression higher than 1 atm }

5/205 . . { before dyeing }

5/2055 . . { during dyeing }

5/2061 . . { after dyeing }

5/2066 . . { Thermic treatments of textile materials }

5/2072 . . { before dyeing }

5/2077 . . { after dyeing }

5/2083 . . { heating with IR or microwaves }

5/2088 . . { by fluid-bed techniques }

5/2094 . . { by molten masses }

5/22 . Effecting variation of dye affinity on textile material by chemical means that react with the fibre ( documents concerning material modified in the mass by compounding with modifying agents affecting the dye affinity after spinning, are not classified here; see the relevant groups C08, D01F, D06P 3/00; grafting of monomers on textile materials C08E, D06M 11/00 )

5/225 . . { Aminalization of cellulose; introducing aminogroups into cellulose }

5/30 . Ink jet printing
Dyeing or printing processes combined with mechanical treatment

[Dyeing combined with texturising or drawing treatments]