

D06P

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

Definition statement

This place covers:

- Dyeing and printing in general of organic macromolecular substances in any form, like fibres, leather, furs and feathers.
- Dyeing compositions for textiles as well as dyeing inks for textiles.
- The dyeing of optical lenses.
- The bleaching of dyed materials when bleaching means complete or partial removal of dyes or decolourization.
- The treatment of textile materials to improve their dyeability.

Relationships with other classification places

- The mechanical aspects and apparatuses for the dyeing of textiles are covered by [D06B-D06C](#).
- The mechanical aspects of printing are covered by [B41F](#).
- The dyeing of optical lenses is also covered by [G02C 7/021](#).
- The dyeing of human hair is covered by [A61Q](#).
- The dyeing of macromolecular products in other form than a textile, e.g. films, shaped or moulded macromolecular substances is also covered by [C08J 7/00](#).
- The finishing of textile materials is covered by [D06M](#).
- An overlapping might occur with [D06Q](#) dealing with textile decoration.
- An overlapping might occur with [C03C 25/475](#) dealing with the colouring of glass fibres or [C03C 25/104](#), [C03C 25/106](#) or [C03C 25/1065](#) dealing with the coating of optical fibres or [C03C 25/1095](#) dealing with the chemical treatment of glass fabrics.

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Surface treatment of fibres or filaments from glass, minerals or slags	C03C 25/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Dyeing of human hair	A61Q 5/10 , A61Q 5/065
Typewriters, ink-jet printers or thermal printers	B41J
Printing on surfaces of materials other than textiles	B41M
Colouring of polymers	C08J 3/20
Chemical treatment or coating of shaped articles made of macromolecular substances	C08J 7/00
Synthesis of organic dyes or organic pigments	C09B
Inorganic pigments	C09C
Ink compositions	C09D 11/00

Pigment pastes	C09D 17/00
Chemical treatment of leather	C14C
Industrial bleaching of textile materials	D06L
Optical bleaching	D06L 4/60
Finishing of textile materials; mordanting	D06M
Chemical aspects of textile decoration	D06Q
Dyeing paper	D21H

Special rules of classification

In case of a composition comprising several compounds, a class is allocated for each compound.

Informative aspects or complementary aspects of the invention are classified as additional symbols, e.g. when the invention is focused on a reactive dye, then a group corresponding to reactive dye is allocated: [D06P 1/38](#) as additional symbols. In case there are examples concerning the dyeing of wool or cotton with this dye and the process is very well-known, [D06P 3/148](#) and [D06P 3/66](#) are given as additional symbols.

When mechanical and chemical aspects are mentioned, then it should be classified in all subclasses, i.e. a group is allocated in [D06P](#) and [D06B](#) and/or [D06C](#).

When dyeing and finishing processes are combined, it is recommended to also classify the finishing aspect in the corresponding [D06M](#) groups.

Generally, documents disclosing the dyeing of natural polyamide fibres or keratin fibres like wool or hair should be classified in both [D06P](#) and [A61Q](#) only in case there are examples for both textile fibres and hair. When the given examples are only disclosing the dyeing of hair, then it is recommended that the document should only be classified in [A61Q](#). Would the classifier consider the process or the dye used very special or of great interest for the field, then he/she may always allocate a group in [D06P](#).

In groups [D06P 5/04](#) - [D06P 5/10](#), in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Fibre	Fibre is a relatively short, elongated member of natural or artificial material.
Thread	Thread is an assembly of yarns or filaments usually produced by twisting.
Yarn	Yarn is a unitary assembly of fibres or filaments, usually produced by spinning.
Fabric	Fabric is a planar textile structure produced by interlacing yarns, threads, fibres or filaments by a weaving, knitting or non-woven process.

D06P 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

Definition statement

This place covers:

General processes for dyeing, compositions for dyeing or printing classified according to the chemical structure of the dyes or the compounds used.

Special processes for dyeing, e.g. dyeing with dyes in special form, specific dyeing recipes, specific dyes used like phosphorescent dyes, obtaining special effects like multicolour dyed textile materials, e.g. different colours on the same thread.

All the compounds which might be used in dye baths or printing pastes or inks, i.e. dyes, mineral, organic or macromolecular compounds.

References

Limiting references

This place does not cover:

Dyeing of glass fibres	C03C
Dyeing of paper	D21H

Special rules of classification

It is recommended to allocate a class for each compound present in the dye bath.

When a compound is bearing several functional groups, then it is recommended to allocate a class for each special functional group.

In case of copolymers it is recommended to allocate a class for each monomer or each part of the copolymer.

The same rule applies to dye, e.g. when the document discloses a process for dyeing with a reactive disperse dye, then a class for the disperse dye should be allocated - [D06P 1/16](#)- as well as a class for the reactive dye [D06P 1/38](#).

D06P 1/0004

{General aspects of dyeing}

Definition statement

This place covers:

The general aspects of dyeing which are not well specified or broadly defined or dyeing processes which cannot be covered by any other subgroups.

Dyeing processes using enzymes in the dye bath.

D06P 1/0008

{Dyeing processes in which the dye is not specific (waste liquors)}

Definition statement

This place covers:

The dyeing of textile where the dye is not specific, or dyeing with waste liquors, i.e. dyeing with dye baths which have already been used, dyeing by immersing the textile several times in the same bath.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Treatment of waste liquors	C02F
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Special rules of classification

When a textile material is dyed with a waste liquor comprising a specific dye, it is recommended to also classify in the group corresponding to the dye used.

D06P 1/0032

{Determining dye recipes and dyeing parameters; Colour matching or monitoring}

Definition statement

This place covers:

Specific processes for dyeing when specific details are provided on the process, e.g. it is disclosed when a specific compound is added to the dye bath, when temperature raises are occurring, when dyeing times are particular, important or well described.

Special rules of classification

A document disclosing that at instant T, compound A is added to dye bath and then the temperature is raised until boiling point in X minutes and further maintained for Y hours... should be classified in that group.

It is recommended that in addition to this class to also allocate classes corresponding to the different compounds used during the dyeing process.

D06P 1/0036

{Dyeing and sizing in one process}

Definition statement

This place covers:

The dyeing and sizing in one process but also the dyeing and finishing in one process, i.e. when the finishing agent is applied simultaneously with the dye, e.g. dyeing combined with a softening treatment.

Relationships with other classification places

The dyeing or printing with pigments combined with optical bleaching in the same bath is covered by [D06L 4/60](#).

Special rules of classification

It is recommended to allocate a class for each compound used in the dye bath in [D06P](#) but also in [D06M](#).

D06P 1/004

{Dyeing with phototropic dyes; Obtaining camouflage effects}

Definition statement

This place covers:

The dyeing with dyes changing of colours according to the circumstances, e.g. color indicators or thermochromic dyes.

Dyed textile materials changing colours according to light orientation.

Textile materials printed with certain patterns to obtain camouflage fabrics, or dyed with specific dyes; e.g. which are reflecting or absorbing infrareds. These textile materials are generally used for military purposes.

Relationships with other classification places

An overlapping might occur with [D06Q](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Wearing apparels	A41
Armours, protective apparels, camouflage in general	F41H

D06P 1/0076

{Dyeing with mineral dye}

Definition statement

This place covers:

The dyeing of textile materials with mineral dyes like carbon black or ferrous oxides.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Inorganic pigments	C09C
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D06P 1/0096

{Multicolour dyeing}

Definition statement

This place covers:

Dyeing processes to obtain multicoloured textiles, i.e. different colours on the same piece, space dyeing, dyeing mixtures of fibres having different dye affinities with dyes of different classes.

Special rules of classification

In case of dyeing of mixture of fibres, it is recommended to also classify in [D06P 3/82](#) and its subgroups as well as to allocate the Indexing Code corresponding to the nature of the fibre dyed by a specific class of dye, e.g. when a textile material comprising polyester and cotton fibres is dyed with a blue disperse dye and a red reactive dye, then a multicolour effect will be obtained.

[D06P 3/8252](#) should be allocated but also [D06P 3/66](#) as well as [D06P 3/54](#) in addition to [D06P 1/0096](#).

D06P 1/34

using natural dyestuffs

Definition statement

This place covers:

The dyeing with natural dyestuffs, of plant or animal origins.

References

Limiting references

This place does not cover:

Dyeing with mineral dyes	D06P 1/0076
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Special rules of classification

In case the natural dye is indigo, [D06P 1/228](#) and its subgroups takes precedence.

D06P 1/39

using acid dyes

Definition statement

This place covers:

The dyeing of textile materials with acid dyes, which can also be called anionic dyes as well as the dyeing of textile materials with direct dyes as they are also generally bearing some anionic solubilising groups.

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "anionic dye" and "acid dye"

D06P 1/44

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

Definition statement

This place covers:

- The pigments used in printing pastes or dye baths.
- All the auxiliary substances used in dye baths or printing pastes.
- Proteins used during dyeing processes.

Special rules of classification

Mixtures of compound are classified according to each different compound.

D06P 1/48

Derivatives of carbohydrates

Definition statement

This place covers:

The carbohydrates used as auxiliary agent in dye baths or textile inks as well as binders in printing pastes.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polysaccharides	C08B
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D06P 1/5207

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

Definition statement

This place covers:

The dyeing or printing of textile materials using polyaddition polymers.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Macromolecular compounds obtained only by reactions involving unsaturated carbon-to-carbon bonds	C08F
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Special rules of classification

Copolymers are classified according to each monomer.

When possible, it is recommended to classify as much as possible in subgroups.

D06P 1/5242**{Polymers of unsaturated N-containing compounds}****Definition statement**

This place covers:

Polymers of unsaturated N-containing compounds like vinyl amines or polyacrylamides or polyallylamines.

Special rules of classification

It is also recommended to classify polyacrylamides or copolymers of acrylamide in [D06P 1/5257](#) as derivatives of unsaturated carboxylic acids.

D06P 1/525**{Polymers of unsaturated carboxylic acids or functional derivatives thereof}****Definition statement**

This place covers:

Polymers of unsaturated carboxylic acids or functional derivatives thereof like esters, salts or amides of unsaturated carboxylic acids.

Polyacrylates, polyacrylamides, polymethylmethacrylates etc... are covered by this group.

D06P 1/5264**{Macromolecular compounds obtained otherwise than by reactions involving only unsaturated carbon-to-carbon bonds}****Definition statement**

This place covers:

The dyeing or printing textile materials using polycondensation polymers as auxiliary agents.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Macromolecular compounds obtained otherwise than by reactions only involving unsaturated carbon-to-carbon bonds	C08G
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Special rules of classification

[D06P 1/5271](#) - [D06P 1/5292](#) are taking precedence on this group.

In case of many possibilities disclosed, unclear polymers or multifunctional polymers it is recommended to also classify in this group in addition to groups [D06P 1/5271](#) - [D06P 1/5292](#).

D06P 1/54

Substances with reactive groups together with crosslinking agents

Definition statement

This place covers:

The dyeing or printing of textile materials with macromolecular substances combined with a crosslinking agent in the same dye bath.

Special rules of classification

In addition to this class, it is recommended to also allocate a class corresponding to the polymer used.

D06P 1/81

using dyes dissolved in inorganic solvents

Definition statement

This place covers:

The dyeing of textile materials dyed with inorganic solvents like liquid carbon dioxide.

Special rules of classification

When the solvent is in a supercritical state, then [D06P 1/94](#) takes precedence. In case the state of the solvent is not clearly defined or disclosed or different states are mentioned, then it is recommended to both classify in [D06P 1/81](#) and [D06P 1/94](#).

D06P 1/90

using dyes dissolved in organic solvents or aqueous emulsions thereof {([D06P 1/94](#) takes precedence)}

Definition statement

This place covers:

The dyeing of textile materials using organic solvents.

Special rules of classification

When the solvent is in a supercritical state, then [D06P 1/94](#) takes precedence. In case the state of the solvent is not clearly defined or disclosed or different states are mentioned, then it is recommended to both classify in [D06P 1/90](#) and [D06P 1/94](#).

D06P 1/94

using dyes dissolved in solvents which are in the supercritical state

Definition statement

This place covers:

The dyeing of textile materials with dye which are dissolved in a solvent which is in a supercritical state, e.g. supercritical CO₂ or carbon dioxide.

Special rules of classification

In case the solvent may be in different state or it is not very clear that the solvent is in a supercritical state, then it is recommended to also classify in [D06P 1/81](#) and [D06P 1/90](#) or its subgroups, according to the chemical nature of the solvent.

D06P 3/00

Special processes of dyeing or printing textiles, or dyeing leather, furs, or solid macromolecular substances in any form, classified according to the material treated

Definition statement

This place covers:

The dyeing or printing according to the material treated as well as the chemical nature of the dyes used.

Special rules of classification

In this main group, it might be useful to classify using the corresponding Indexing Code instead of the EC class as a complement of information.

For example, when the invention is focussed on auxiliary agents, it is recommended to classify the auxiliary agent with EC classes and give the Indexing Code for the type of fibre dyed.

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "basic dyes" and "cationic dyes"
- "acid dyes" and "anionic dyes"

D06P 3/04

containing amide groups

Definition statement

This place covers:

The dyeing of textile materials comprising amide groups and which are not covered by any other subgroups ([D06P 3/24](#), [D06P 3/30](#), [D06P 3/32](#)) like silk.

D06P 3/70

Material containing nitrile groups

Definition statement

This place covers:

The dyeing of fibrous materials containing nitrile groups, like acrylic fibres.

D06P 3/80

Inorganic fibres

Definition statement

This place covers:

The dyeing or printing of inorganic fibres, like glass.

Relationships with other classification places

An overlapping might occur with [C03C 25/475](#), dealing with the colouring of glass fibres or [C03C 25/104](#), [C03C 25/106](#) or [C03C 25/1065](#), dealing with the coating of optical fibres.

The chemical treatment of glass fabrics is classified in [C03C 25/1095](#).

Special rules of classification

With regard to glass fibres or glass fabrics, it is recommended to also classify the document in [C03C 25/00](#).

D06P 3/82

Textiles which contain different kinds of fibres

Definition statement

This place covers:

The dyeing of textile materials made of blends of fibres, like blends of polyester and cotton fibres, wool and polyamide etc...with one dye or with mixtures of dyes.

This group and subgroups are not aligned on the IPC.

Relationships with other classification places

Multicolour dyeing; i.e. when different colours are visible on the textile is also classified in [D06P 1/0096](#).

Special rules of classification

In this subgroup, it is recommended to allocate the most appropriate class but also to allocate the Indexing Code corresponding to the material used: e.g. a mixture of polyester / cotton dyed with a dye bath comprising a mixture of disperse and reactive dye should be classify in [D06P 3/8252](#). In addition, the following Indexing Codes should also be allocated: [D06P 3/54](#) and [D06P 3/66](#).

Classes corresponding to the additives present in the dye-bath should also be allocated.

It is recommended to also classify in [D06P 1/0096](#) when a multicolour effect is obtained.

D06P 5/00

Other features in dyeing or printing textiles, or dyeing leather, furs, or solid macromolecular substances in any form

Definition statement

This place covers:

All the dyeing or printing aspects which are not covered by the previous groups, e.g. after-treatments of dyed materials, special aspects or processes for printing, physical treatments affecting dyeing, treatments modifying dye affinity.

Special rules of classification

In this subgroup, it is recommended to additionally classify the chemical aspect or the material used either with EC symbols [D06P 1/00-D06P 3/00](#) or to allocate the corresponding Indexing Codes [D06P 1/00-D06P 3/00](#).

D06P 5/001

{Special chemical aspects of printing textile materials}

Definition statement

This place covers:

Only the special chemical aspects of printing of textile materials which are not covered by any other groups, e.g. printing pastes.

References

Limiting references

This place does not cover:

Special chemical aspects of transfer printing	D06P 5/003- D06P 5/009
Special chemical aspects of ink-jet printing	D06P 5/30

Special rules of classification

In addition to this group, it is always recommended to add a class to according to the individual chemical compounds used in [D06P 1/00](#) and its subgroups.

D06P 5/002

{Locally enhancing dye affinity of a textile material by chemical means}

Definition statement

This place covers:

All the chemical treatments, locally or on the whole surface to enhance the dye affinity of the textile material.

Relationships with other classification places

An overlapping might occur with [D06P 5/22](#) and [D06P 5/225](#) dealing with treatment affecting dye affinity.

References

Limiting references

This place does not cover:

Physical treatments to enhance dye affinity	D06P 5/20
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Special rules of classification

In this group, an overlapping might occur with [D06P 5/22](#) and [D06P 5/225](#). When it is not clear that the chemical treatment reacts with the fibre or in case of doubt, it is recommended to classify at both places, i.e. [D06P 5/22](#) and [D06P 5/002](#).

Synonyms and Keywords

In patent documents, the word/expression in the first column is often used instead of the word/expression in the second column, which is used in the classification scheme of this place:

"dye uptake"	"dye affinity"
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D06P 5/003

{Transfer printing}

Definition statement

This place covers:

Textile materials dyed by transfer printing, the pre-treatment of textile materials to make them suitable for transfer printing, materials used for transfer printing of textiles like transfer sheets and processes for the transfer printing of textile materials.

Relationships with other classification places

An overlapping might occur with transfer printing in general which is covered by [B41M](#) as well as decalcomanias which are covered by [B44C](#).

An overlapping might also occur with [D06Q](#) when other materials than dyes are transferred onto textile surfaces for decorative purposes, [D06Q](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Transfer printing apparatus for textile material	B41F 16/02
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Special rules of classification

Papers for transfer printing of textile materials should also be classified in [B41M](#).

Papers for transfer printing of textile materials are also classified in [D06P 5/30](#).

Chemical compounds used for transfer printing processes are also classified according to their chemical nature in [D06P 1/00](#) and subgroups.

Post-treatments of transfer printed textiles are also classified in [D06P 5/02-D06P 5/08](#).

D06P 5/02

After-treatment

Definition statement

This place covers:

All the after-treatments of dyed or printed textile materials to modify their properties, e.g. to soften them, to enhance their fastness to wash, light, sweat, etc...or to remove unfixed dyes.

Special rules of classification

In addition to this group, it is recommended to also allocate an Indexing Code according to the nature of the chemical compounds used.

D06P 5/12

Reserving parts of the material before dyeing or printing {; Locally decreasing dye affinity by chemical means}

Definition statement

This place covers:

The partial treatment with chemical compounds of textile materials to locally decrease their dye affinity, the application of printing pastes to prevent dyes from accessing the fibre. The physical hindrance for dyes to access the fibres like making knots on fabrics.

These treatments are carried out before dyeing to produce completely white or lighter areas on the dyed textile materials.

Synonyms and Keywords

In patent documents, the word/expression in the first column is often used instead of the word/expression in the second column, which is used in the classification scheme of this place:

"dye uptake"	"dye affinity"
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D06P 5/13

Fugitive dyeing or stripping dyes

Definition statement

This place covers:

The bleaching / decolouration or removal of dyes of dyed/printed textile materials.

The fugitive dyeing of textile materials, i.e. temporary dyeing of textile materials with dyes which are not fast or are unstable in normal conditions.

Relationships with other classification places

An overlapping might occur with [D06P 1/004](#), dyeing with phototropic dyes, colour indicators.

An overlapping might occur with [D06P 5/15](#), locally discharging the dyes.

Special rules of classification

In case of doubt or overlapping with [D06P 5/15](#), it is recommended to classify in both groups.

D06P 5/15

Locally discharging the dyes

Definition statement

This place covers:

The discharge printing of textile materials, partial decolouration, the uncomplete removal of dye from dyed or printed textile materials, the producing of stone washed effects or the ageing of dyed textile materials.

Relationships with other classification places

An overlapping might occur with [D06P 5/13](#), fugitive dyeing or stripping dyes.

With regard to stone washing or ageing of textile materials, an overlapping might occur with [D06P 5/20](#) and [D06P 7/00](#).

Special rules of classification

In case of doubt or overlapping with [D06P 5/13](#), it is recommended to classify in both groups, i.e. [D06P 5/13](#) and [D06P 5/15](#).

With regard to stone washing or ageing of textile materials, it is recommended to additionally classify in [D06P 5/20](#), when partial discolouration is obtained by laser treatment for example or in [D06P 7/00](#) when partial discolouration is obtained by abrasion with pumice for example.

D06P 5/20

Physical treatments affecting dyeing, e.g. ultrasonic or electric

Definition statement

This place covers:

All the physical treatments affecting dyeing which are carried out before, during of after dyeing to modify dyeing affinity, to fix the dyes, to remove the dye or to help in the dyeing process.

Relationships with other classification places

An overlapping might exist with [D06M 10/00-D06M 10/10](#), physical treatment of fibres combined or not with a chemical treatment.

Special rules of classification

In this subgroup, when chemical compounds are used in combination with the physical treatment, is recommended to also allocate an Indexing Code corresponding to the chemical compound.

D06P 5/2005

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

Definition statement

This place covers:

The treatment of textile materials with e.g. ionizing radiations, gamma rays, ultraviolet, laser, infrared, at any stage of the dyeing process.

Relationships with other classification places

There might be an overlapping with [D06P 5/2083](#), heating with infrareds.

Special rules of classification

In case of treatment with infrared, it is also recommended to classify in [D06P 5/2083](#).

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

IR	Infrared
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D06P 5/2011

{Application of vibrations, pulses or waves for non-thermic purposes}

Definition statement

This place covers:

The treatment with waves, e.g. microwaves for non thermic purposes or application of ultrasonic radiations.

Relationships with other classification places

There might be an overlapping with [D06P 5/2083](#).

Special rules of classification

In case of microwaves , it is recommended to also classify in [D06P 5/2083](#) as microwaves always generate a temperature elevation.

D06P 5/2016

{Application of electric energy}

Definition statement

This place covers:

The application of electric energy to the textile material itself, like a plasma treatment of the textile material or application of electric energy to the dye bath, like electrolysis of some components of the dye bath.

Special rules of classification

In the case of electrolysis of some components of the dye bath, it is recommended to allocate a class corresponding to the component itself, before and/or after electrolysis as well as a class corresponding to the dyeing process.

D06P 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 [C08F](#), [D06M 11/00](#))}

Definition statement

This place covers:

The treatment of textile materials with chemical compounds that react with the fibre, i.e. which are forming a chemical bonding with the fibre, to increase or improve the dye affinity of the textile material.

Relationships with other classification places

An overlapping might occur with [D06P 5/002](#).

References

Limiting references

This place does not cover:

The treatment of textile materials to locally or completely decrease their dye affinity	D06P 5/12
Physical treatment to increase dye affinity or dye uptake	D06P 5/20
Treatment to improve hydrophilic properties	D06M

Special rules of classification

In case of overlapping with [D06P 5/002](#), it is recommended to classify in both groups.

When it is mentioned that the treatment also increases hydrophilic properties of the textile treated, then a class in [D06M](#) should also be allocated as well as the relevant [D06M](#) Indexing Code.

Synonyms and Keywords

In patent documents, the word/expression in the first column is often used instead of the word/expression in the second column, which is used in the classification scheme of this place:

"dye uptake"	"dye affinity"
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D06P 5/30

Ink jet printing

Definition statement

This place covers:

- The dyeing of textile materials by the ink-jet printing method.
- Ink compositions for ink-jet printing of textile materials.
- The pre-treatments of textile materials to make them suitable for subsequent ink-jet printing.
- Papers suitable for transfer printing of textile materials but printed by ink-jet method.

Relationships with other classification places

An overlap might occur with [C09D 11/00](#), ink compositions in general, when the use of the ink is not limited to textile ink-jet printing.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ink-jet printers	B41J 2/00
Ink-jet printing of any other surface than textile surfaces	B41M
Ink compositions in general	C09D 11/00

Special rules of classification

Next to this subgroup, it is recommended to also classify a document dealing with ink-jet printing in the groups corresponding to the different components used in the ink or in the pre-treatment composition. In that case, it is recommended to use Indexing Codes for complementary informations.

For example, document EP-A-1835060 discloses the pre-treatment of a textile material made of polyamide with hydroxyethyl cellulose and an ammonium salt and urea. It is suitable for ink-jet printing employing an acid dye.

This document is classified in [D06P 1/66](#) for the ammonium salt, [D06P 1/50](#) for the hydroxyethyl cellulose, [D06P 1/6491](#) for the urea, [D06P 5/30](#) for the ink-jet printing aspect. As it is a polyamide material dyed with acid dye, the Indexing Code corresponding to dyeing of polyamide with acid dye, [D06P 3/241](#) is also allocated.

D06P 7/00

Dyeing or printing processes combined with mechanical treatment

Definition statement

This place covers:

The dyeing of textile materials combined with mechanical treatment like stretching, drawing, twisting, pressing, calendering, embossing etc.

The stone-washing of dyed textile materials when it is carried out in presence of pumice stones or any other abrading material.

Relationships with other classification places

An overlapping might occur with [D06Q 1/08](#), dealing with the decoration of textiles by fixation of mechanical effects, e.g. calendering, embossing or Chintz effects using chemical means.

With regard to the stone washing of textile materials, when mechanical abrasion is combined with a bleaching agent or any other chemical, then it is recommended to also classify the chemical agent in [D06P 5/15](#) as well as allocating the relevant Indexing Code for the chemical agent.