

D06L

DRY-CLEANING, WASHING OR BLEACHING FIBRES, FILAMENTS, THREADS, YARNS, FABRICS, FEATHERS OR MADE-UP FIBROUS GOODS; BLEACHING LEATHER OR FURS

Definition statement

This place covers:

Dry-cleaning or industrial washing of fibres, filaments, threads, yarns, fabrics, feathers, or made-up fibrous goods using organic, inorganic or aqueous baths. Processes include desizing or chemical preparation for subsequent chemical treatments like dyeing or the application of finishing agents. Furthermore, it includes the regeneration of used chemical baths, working under pressure in closed vessels, processes combined with mechanical means, and multi-step processes.

Bleaching fibres, filaments, threads, yarns, fabrics, feathers, or made-up fibrous goods, leather, or furs using, for example, reducing agents, enzymes, irradiation, ozonisation or optical bleaching and compounds which develop oxygen or which contain halogen.

Relationships with other classification places

[D06L](#) covers fading of naturally occurring colour and [D06P](#) covers removing of dyes from dyed textiles, e. g. using reserving agents, etch resists.

In case of a multi-step treatment process comprising both mechanical steps and chemical steps, where a mechanical step might be one of the treatment steps, [D06L](#) does not provide for a single purely mechanical treatment step, e.g. [D06L 1/20](#) dry-cleaning or washing fibres, filaments, threads, yarns, fabrics using aqueous baths combined with mechanical means

References

Informative references

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

Preparations for bleaching the hair	A61Q 5/08
Preparations for deodorising, bleaching or disinfecting dentures	A61Q 11/02
Preparations for chemically bleaching or whitening the skin	A61Q 19/02
Surface treatment of fibres or filaments of glass, mineral wool, or slag wool	C03C 25/00
Detergent compositions	C11D
Bleaching agents	C11D 3/395
Brightening agents	C11D 3/42
Enzymes, enzymes compositions	C12N 9/00
Chemical treatment of natural filamentary or fibrous material to obtain filaments or fibres for spinning	D01C
Chemical after-treatment of artificial filaments or the like during manufacture	D01F 11/00
Pleating, kilting or goffering textile fabrics or wearing apparel	D06J
Chemical treatment of textile materials, Sizing agents	D06M
Transfer printing	D06P 5/003
Decolouration of dyed textile materials, stripping dyes from dyed textile materials	D06P 5/13

Locally discharging the dyes, e. g. using reserving agents, etch resists	D06P 5/15
Stone washing	D06P 5/20 , D06P 7/00 , D06M 11/79
Bleaching cellulose pulp or cotton linters	D21C 9/10

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 or natural or artificial material.
Filament	Filament is an endless or quasi-endless, elongated member of natural or man-made 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, fibers or filaments by a weaving, knitting or non-woven process.
Bleaching	Process of improving the whiteness of textile materials, with or without the removal of natural colouring matter and/or extraneous substances, by a bleaching agent
Brightening	Process of making textile materials brighter by using a brightener or optical brightening agent
Optical bleaching or brightening	Processes that give textile materials the effect of great whiteness and brightness by the use of optical brightening agents

Optical brightener, optical whitener, brightening agents, fluorescent brightener, fluorescent whitening agent	A substance that is added to an uncoloured or a coloured textile material to increase the apparent reflectance in the visible region by conversion of ultra-violet radiation into visible light and so to increase the apparent brightness or whiteness. Optical brighteners, optical brightening agents (OBAs), fluorescent brightening agents (FBAs) or fluorescent whitening agents (FWAs) are chemical compounds that absorb light in the ultraviolet and violet region (usually 340-370 nm) of the electromagnetic spectrum, and re-emit light in the blue region (typically 420-470 nm). Fluorescent activity is a short term or rapid emission response, unlike phosphorescence, which is a delayed emission. These additives are often used to enhance the appearance of colour of fabric and paper, causing a "whitening" effect, making materials look less yellow by increasing the overall amount of blue light reflected. FLUORESCENT BRIGHTENING AGENTS are colourless fluorescent dyes. They are also called OPTICAL BRIGHTENERS. In accordance with their definition as "colourless" fluorescent dyes, Their colouristic performance is that of fluorescent dyes, without absorbing light in the visible range of the spectrum. They absorb ultraviolet rays present in incident sunlight. This absorbed ultraviolet light is re-emitted by the FLUORESCENT BRIGHTENING AGENT, which is of longer wavelength than the incident ultraviolet light and is known as the fluorescence light. This generally falls in the blue region of the visible spectra. The fluorescence light is then superimposed on the reflected light thereby restoring the balance of different colours and hence producing brilliant white effect.
Differential optical brightening	Process to optically brighten fibres which are of the same basic type, e.g. nylon, but with different optical brightening properties.

Synonyms and Keywords

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

- "Optical bleaching agents", "Brightening agents", "Brighteners"

D06L 1/00

Dry-cleaning or washing fibres, filaments, threads, yarns, fabrics, feathers or made-up fibrous goods

Definition statement

This place covers:

The dry cleaning or the industrial washing like desizing of textile materials as with organic or inorganic solvents, aqueous baths and compositions therefor.

They are thus prepared for subsequent treatment.

Domestic dry cleaning processes and compositions.

The regeneration of used chemical baths.

Relationships with other classification places

Home laundering compositions are classified in [C11D](#).

References

Informative references

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

Washing machines	D06F
Dry cleaning apparatuses	D06F 43/00
Domestic spin dryers	D06F 49/00

Special rules of classification

When the solvent is liquid CO₂ or in the supercritical state then it is recommended to classify in [D06L 1/00](#).

When enzymes compositions are used for the washing of textile materials, it is recommended to classify in [D06L 1/00](#).

Aqueous emulsions (mixture water / solvent) for washing are classified in [D06L 1/12](#) and its subgroups.

D06L 4/00

Bleaching fibres, filaments, threads, yarns, fabrics, feathers or made-up fibrous goods; Bleaching leather or furs

Definition statement

This place covers:

All chemical bleaching processes and compositions using oxidizing, reducing or optical bleaching agents as well as enzymatic compositions; processes which are providing whiter textile materials than non-treated textile materials.

In the present case, bleaching means fading of natural colour and not removal of dyes.

References

Informative references

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

Bleaching of hair	A61K
Removal of impurities from raw natural fibres, scouring or degumming	D01C
Dyeing and bleaching in one process	D06P 1/0024
The decolouration of dyed textile materials, fugitive dyeing or stripping dyes	D06P 5/13
Locally discharging the dyes, discharge printing	D06P 5/15
Stone washing	D06P 5/20 , D06P 7/00

Special rules of classification

In case of overlapping with [D06P 1/0024](#), it is recommended to both classify in [D06L 4/00](#) or its subgroups as well as in [D06P 1/0024](#). It is also recommended to allocate other relevant [D06P](#) groups which are covering the dyeing aspects.

D06L 4/40

using enzymes

Definition statement

This place covers:

The bleaching of textile materials, leather or furs with compositions containing enzymes.

References

Informative references

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

Detergent compositions containing enzymes	C11D 3/386
Enzymes, enzymes compositions	C12N 9/00
Immobilized enzymes	C12N 11/00
Chemical treatment of textile materials with enzymes	D06M 16/00

D06L 4/60

Optical bleaching or brightening

Definition statement

This place covers:

The optical bleaching or brightening of textile materials, i.e. the treatment of textile materials with compounds providing the effect of great whiteness, generally fluorescent colourless dyes which are reflecting more blue light.

References

Informative references

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

The dyeing of textile materials	D06P
Effecting dyeing to obtain luminescent or phosphorescent dyeings	D06P 1/0012
Dyeing and bleaching in one process	D06P 1/0024

Special rules of classification

When the composition comprises a mixture of optical brighteners, it is recommended to allocate [D06L 4/65](#) but in case the composition comprises a mixture of optical brightener and dye, then [D06L 4/657](#) or [D06L 4/693](#) should be allocated.

Synonyms and Keywords

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

- "Optical bleaching agents", "Optical bleaching compounds", "Brightening agents", "Brighteners"