

## D06M

**TREATMENT, NOT PROVIDED FOR ELSEWHERE IN CLASS [D06](#), OF FIBRES, THREADS, YARNS, FABRICS, FEATHERS OR FIBROUS GOODS MADE FROM SUCH MATERIALS**

### Definition statement

*This place covers:*

The chemical and physical treatment of fibrous materials in any form like fibres, nanofibers, microfibers, threads, yarns, knits, fabrics, non-wovens, feathers made from organic natural, synthetic macromolecular compounds or carbon to modify their properties or impart specific functions.

### Relationships with other classification places

The mechanical aspects and apparatuses for the treatment of textiles is covered by [D06B](#) - [D06C](#). When mechanical and chemical aspects are mentioned, then it should be classified in all subclasses.

The manufacture of non-wovens where the fibres are bonded with binder compositions is covered by [D04H](#).

The coating of two-dimensional textile surfaces by macromolecular substances is covered by [D06N](#): coating means deposition onto the surface, contrary to impregnation; i.e. deposition by doctor blading, pasting, casting etc., contrary to dipping in bath, padding etc. When it is not clear whether it is a deposition or impregnation, or in case both processes are possible, then it is classified in all subclasses.

Coating of fibres or filaments is classified in [D06M](#).

### 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:*

|   |                             |
|---|-----------------------------|
| Cigarette filters   | <a href="#">A24D 3/00</a>   |
| Wearing apparels  | <a href="#">A41</a>         |
| Headwear  | <a href="#">A42B</a>        |
| Footwear  | <a href="#">A43B</a>        |
| Chairs, sofas, beds   | <a href="#">A47C</a>        |
| Curtains  | <a href="#">A47H</a>        |
| Cosmetic compositions, cosmetic pads  | <a href="#">A61K</a>        |
| Strings for tennis rackets  | <a href="#">A63B 51/02</a>  |
| Filters   | <a href="#">B01D 39/00</a>  |
| Airbags   | <a href="#">B60R 21/235</a> |
| Fibres/fillers for concrete reinforcement   | <a href="#">C04B 14/46</a>  |
| Macromolecular compounds obtained only by reactions involving unsaturated carbon-to-carbon bonds                | <a href="#">C08F</a>        |
| Macromolecular compounds obtained otherwise than by reactions only involving unsaturated carbon-to-carbon bonds | <a href="#">C08G</a>        |
| Treating of macromolecular substances   | <a href="#">C08J</a>        |

## Application-oriented references

|   |                             |
|---|-----------------------------|
| Additives for macromolecular compositions                     | <a href="#">C08K</a>        |
| Macromolecular compositions                                   | <a href="#">C08L</a>        |
| Coating compositions  | <a href="#">C09D</a>        |
| Flame proofing compositions, water/oil repellent compositions | <a href="#">C09K</a>        |
| Yarns or threads  | <a href="#">D02G</a>        |
| Woven materials   | <a href="#">D03D</a>        |
| Knitted materials   | <a href="#">D04B</a>        |
| Non-wovens  | <a href="#">D04H</a>        |
| Tufted materials  | <a href="#">D05C 17/00</a>  |
| Synthetic grass or lawns                                      | <a href="#">E01C 13/08</a>  |
| Geotextiles   | <a href="#">E02D - E02B</a> |
| Insulating materials for buildings                            | <a href="#">E04B 1/62</a>   |
| Strings for musical instruments                               | <a href="#">G10D 3/10</a>   |

**Informative references**

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

|  |                             |
|--|-----------------------------|
| Chemical aspects of bandages or absorbent pads   | <a href="#">A61L</a>        |
| Apparatus for applying liquids or other fluent materials to surfaces   | <a href="#">B05C</a>        |
| Processes for applying liquids or other fluent materials to surfaces   | <a href="#">B05D</a>        |
| Pre-treatment of tyre cords or reinforcing fibres  | <a href="#">B29B 15/08</a>  |
| Treatment of fibrous materials made from glass   | <a href="#">C03C 25/00</a>  |
| Treatment of fibrous materials made from ceramic, natural or artificial stone fibres   | <a href="#">C04B 41/00</a>  |
| Composite materials (chemical aspect)  | <a href="#">C08J 5/00</a>   |
| Domestic cleaning and detergent compositions   | <a href="#">C11D</a>        |
| Chemical treatment of skins hides or leathers  | <a href="#">C14C</a>        |
| The chemical treatment of raw natural fibres before dyeing or any finishing treatment to remove impurities as well as scouring | <a href="#">D01C</a>        |
| Chemical treatment of fibres during production or extrusion  | <a href="#">D01F 11/00</a>  |
| Mechanical aspects of the treatment of textiles and apparatuses used thereof   | <a href="#">D06B - D06C</a> |
| Industrial cleaning and/or bleaching of textile materials  | <a href="#">D06L</a>        |
| The coating of textile surfaces with a layer of macromolecular material, artificial leather, oilcloth                          | <a href="#">D06N</a>        |
| Dyeing of textiles   | <a href="#">D06P</a>        |
| Manufacture of fibres for paper or chemical treatment thereof, pulp fibres   | <a href="#">D21C</a>        |
| Treatment of paper   | <a href="#">D21H</a>        |

**Special rules of classification**

When a textile material is manufactured for special purposes or uses, then it is also classified in the corresponding subclasses.

## Special rules of classification

When a composition or a compound appears to be essential, then it is also classified in the corresponding composition/ compound subclass.

When the textile structure appears to be essential, then it is classified in the corresponding subclass.

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

In case of macromolecular compounds comprising several monomers or copolymers, a class is given for each monomer.

For example, a copolyether-ester should be classified in [D06M 15/53](#) and [D06M 15/507](#).

A copolymer acrylic acid/styrene should be classified in [D06M 15/233](#) and [D06M 15/263](#).

In case of compounds bearing several functional groups, a symbol is given for each essential functional group.

Normally, the subject-matter disclosed in both the claims and the examples is to be classified. Other components mentioned or disclosed in the description can be optionally classified provided that their function is not essential.

In these cases, symbol allocation is at the discretion of the classifier.

But in case the subject matter of the claim is too broadly defined or unclear, or too many possibilities are disclosed, for example, Markush formulas, then only the subject matter of the examples is classified.

And in case no examples are provided, it is recommended to allocate a symbol for the most probable compounds or combination of compounds or compositions.

In case of doubt between two groups/subgroups, it is recommended to allocate both.

To conclude, it is recommended that classification is complete as much as possible: it is always preferable to allocate too many symbols than too few.

When possible and when relevant, it is strongly recommended to allocate Orthogonal Indexing Codes corresponding to the chemical nature of the fibre or the functionality of the treatment:

- for example, for an anti-shrinking treatment of wool, [D06M 2101/12](#) and [D06M 2200/45](#) should be allocated, because an anti-shrinking treatment of wool should be different from an anti-shrinking treatment of cotton;
- on the contrary, for a treatment imparting flame resistance to textile materials made of cotton, [D06M 2200/30](#) should be allocated, but [D06M 2101/06](#) might be considered as optional.

Orthogonal Indexing Codes [D06M](#) are associated to this subclass:

- [D06M 2101/00](#) - [D06M 2101/40](#): Chemical constitution of the fibres;
- [D06M 2200/00](#) - [D06M 2200/50](#): Functionality of the treatment composition and/or properties imparted to the textile material;
- [D06M 2400/00](#) - [D06M 2400/02](#): Specific information on the treatment or the process itself, not provided in [D06M 23/00](#) - [D06M 23/18](#).

Attention is drawn to Note (3) after the title of section [C](#), which Note indicates to which version of the Periodic Table of chemical elements the CPC refers.

## D06M 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](#))}

### Definition statement

*This place covers:*

The treatment of fibrous materials with subsequent freeing of the treated good from treating medium: these group and subgroup are not used.

### Relationships with other classification places

The treatment of asbestos fibres is covered by [C04B 41/00](#).

## D06M 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**

### Definition statement

*This place covers:*

The physical treatment of fibrous materials or the physical treatment of fibrous materials combined with chemical compounds, simultaneously or successively, like treatment with lasers, U.V., plasma, microwaves, X-rays or gamma-rays etc.

### Relationships with other classification places

In this group, an overlapping might occur with [D06M 14/18-D06M 14/34](#), dealing with the graft polymerisation of monomers containing carbon-to-carbon unsaturated bonds onto textile material, using wave energy or particle radiation.

### References

#### Limiting references

*This place does not cover:*

|                              |                           |
|------------------------------|---------------------------|
| Devices for plasma treatment | <a href="#">H01J</a>      |
| Lasers                       | <a href="#">H01S 3/00</a> |

### Special rules of classification

In this group, it might happen an overlapping with [D06M 14/18-D06M 14/34](#). When it is not clear whether a graft polymerisation is taking place or not, or how the chemical compounds are reacting with the fibre, then it is recommended to use a double classification.

For example, when a plasma treatment is carried out in the presence of acrylic acid or ethylene, then a grafting reaction onto the fibre surface might occur. In case it is not explicitly mentioned, then both classes [D06M 10/025](#) and [D06M 14/28](#) should be allocated.

## D06M 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](#)})**

### Definition statement

*This place covers:*

The physical treatment combined with treatment with chemical compounds, both treatments can be carried out simultaneously or consecutively and in any order.

The chemical/physical vapour deposition on textile materials.

### References

#### Informative references

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

|                            |                            |
|----------------------------|----------------------------|
| Physical Vapour Deposition | <a href="#">C23C 14/00</a> |
| Chemical Vapour Deposition | <a href="#">C23C 16/00</a> |

### Special rules of classification

In this group, it might happen an overlapping with [D06M 14/18-D06M 14/34](#). If not clear, then it is recommended to use double classification.

### Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

|     |                            |
|-----|----------------------------|
| CVD | Chemical Vapour Deposition |
| PVD | Physical Vapour Deposition |

## D06M 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)**

### Definition statement

*This place covers:*

The chemical treatment of fibrous materials with inorganic compounds.

### References

#### Limiting references

*This place does not cover:*

|  |                            |
|--|----------------------------|
| Physical treatment of fibres, threads, yarns, fabrics, or fibrous goods made from such materials; Physical treatment combined with treatment with chemical compounds or elements | <a href="#">D06M 10/00</a> |
|--|----------------------------|

**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:

|  |                           |
|--|---------------------------|
| Decorating textiles by local treatment | <a href="#">D06Q 1/00</a> |
|--|---------------------------|

**Special rules of classification**

In this group, classification of the elements is to be understood in accordance with CPC subclass [C07F](#), i.e. according to the Periodic Table of chemical elements that is represented by a table with columns IA, IIA, IIIB-VIIIB, IB, IIB, and IIIA-VIIIA.

**D06M 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](#))

**References****Limiting references**

This place does not cover:

|                                     |                            |
|-------------------------------------|----------------------------|
| With water or heavy water           | <a href="#">D06M 11/05</a> |
| With oxides or oxyacids of halogens | <a href="#">D06M 11/30</a> |

**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:

|           |                      |
|-----------|----------------------|
| Bleaching | <a href="#">D06L</a> |
|-----------|----------------------|

**D06M 11/38**

Oxides or hydroxides of elements of Groups 1 or 11 of the Periodic Table

**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:

|   |                           |
|---|---------------------------|
| Producing patterns by locally destroying or modifying the fibres by chemical action | <a href="#">D06Q 1/02</a> |
|---|---------------------------|

**D06M 11/40**

combined with, or in absence of, mechanical tension, e.g. slack mercerising

**Definition statement**

This place covers:

The mercerising of textile materials in any form.

**Relationships with other classification places**

The mechanical aspect of mercerising is covered by [D06B 7/00](#).

**D06M 11/77**

**with silicon or compounds thereof (with silanes or disilanes [D06M 11/01](#))**

**Definition statement**

*This place covers:*

The treatment of textiles with silicon or compounds thereof.

This group also covers the treatment of fibrous materials with silicium carbide (SiC).

**D06M 11/79**

**with silicon dioxide, silicic acids or their salts**

**Definition statement**

*This place covers:*

The treatment of textile materials with silicon dioxide, silicic acid or their salt in any form.

The treatment of textiles materials with silicates, zeolites, talc, diatomaceous, clays, ceramics.

Silicon based sol-gel classified in this group.

**Special rules of classification**

In case of a sol-gel treating composition, it is recommended in addition to this class to allocate the Indexing Code [D06M 2400/02](#).

**D06M 11/83**

**with metals; with metal-generating compounds, e.g. metal carbonyls;  
Reduction of metal compounds on textiles**

**Definition statement**

*This place covers:*

The textile treatment with metal compounds or metal generating compounds, i.e. compounds or compositions which are not necessarily in metallic form at the beginning of the treating process, but are transformed to a metallic form during the process such that a metal is deposited on the fibrous material.

**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:*

|  |                           |
|--|---------------------------|
| Decorating textiles by locally metallising | <a href="#">D06Q 1/04</a> |
|--|---------------------------|

**Informative references**

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

|                             |   |
|-----------------------------|---|
| Metallisation               | <a href="#">C23C 14/00</a> , <a href="#">C23C 16/00</a> ,<br><a href="#">C23C 18/00</a> |
| Transfer or metal particles | <a href="#">D06Q 1/12</a>   |
| Printed circuits boards     | <a href="#">H05K</a>  |

**Special rules of classification**

The metallisation of textile materials can be carried out with various purposes:

- with silver, copper etc. to impart antimicrobial properties, and in this case [D06M 16/00](#) should also be allocated;
- for decorating purposes, then [D06Q 1/04](#) should also be allocated;
- for manufacturing conductive textiles which can be used as printed circuits boards, then [H05K](#) should also be allocated.

In case of non-uniform application of the metal, i.e. local metallisation, then CPC symbol [D06M 23/18](#) should also be allocated.

**D06M 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**

**Definition statement**

*This place covers:*

The treatment of textile materials with non-macromolecular or low molecular weight organic compounds.

**References****Limiting references**

*This place does not cover:*

|   |                      |
|---|----------------------|
| Treatment with optical brighteners                | <a href="#">D06L</a> |
| Treatment with coloured compounds or organic dyes | <a href="#">D06P</a> |

**Special rules of classification**

It sometimes happens that it is not clear whether the compound is a non-macromolecular compound or a macromolecular compound: in case of doubt, it is recommended to classify both in [D06M 13/00](#) or its relevant subgroups and [D06M 15/00](#) or its relevant subgroups.

For example when the textile treating composition contains a compound of type H(-CH<sub>2</sub>-CH<sub>2</sub>-O)<sub>n</sub>H with n comprised between 4 and 20, then it is recommended to classify in both [D06M 13/17](#) and [D06M 15/53](#).



## D06M 13/005

**{Compositions containing perfumes; Compositions containing deodorants}**

### Definition statement

*This place covers:*

The treatment with compositions which are avoiding the development of bad smells or compositions which are covering or masking bad smells odour or composition which are containing perfumes or deodorant molecules.

### References

#### Informative references

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

|  |  |
|--|--|
| Formulations or additives for perfume preparations | <a href="#">A61K 8/00</a> associated with <a href="#">A61Q 13/00</a> |
| Essential oils or perfumes per se                  | <a href="#">C11B 9/00</a>  |

### Special rules of classification

Bad smells are generally generated by the development of bacteria. In case the deodorizing composition is also exhibiting antibacterial properties, then [D06M 16/00](#) should also be allocated.

When deodorizing compositions or perfumes are encapsulated, then [D06M 23/12](#) should also be allocated.

## D06M 13/02

**with hydrocarbons**

### Definition statement

*This place covers:*

The treatment of fibrous materials with all hydrocarbons.

The treatment with paraffins or waxes when no indications are provided with regard to the wax composition.

## D06M 13/148

**Polyalcohols, e.g. glycerol {or glucose}**

### Definition statement

*This place covers:*

The treatment of fibrous materials with polyalcohols of low molecular weight.

The treatment with sugars, for example glucose and saccharose.

### References

#### Limiting references

*This place does not cover:*

|                                  |                            |
|----------------------------------|----------------------------|
| The treatment with cyclodextrins | <a href="#">D06M 15/03</a> |
|----------------------------------|----------------------------|

**D06M 13/207**

**Substituted carboxylic acids, e.g. by hydroxy or keto groups; Anhydrides, halides or salts thereof**

**Definition statement**

*This place covers:*

The treatment of fibrous materials with substituted carboxylic acids, for example substituted by hydroxy groups like citric acid.

**D06M 13/285**

**Phosphines; Phosphine oxides; Phosphine sulfides; Phosphinic or phosphinous acids or derivatives thereof**

**Definition statement**

*This place covers:*

The treatment of fibrous materials with phosphines, phosphine oxides, phosphine sulfides, phosphinic or phosphinous acids or derivatives thereof, i.e. compounds of general formula  $H_3PO_2$  or derivatives thereof.

Derivatives thereof are also including phosphonium.

**D06M 13/50**

**with organometallic compounds; with organic compounds containing boron, silicon, selenium or tellurium atoms**

**Definition statement**

*This place covers:*

The treatment of fibrous materials with organometallic compounds; with organic compounds containing boron, silicon, selenium or tellurium atoms but also with complexes of metals with organic compounds.

**D06M 13/52**

**combined with mechanical treatment**

**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:*

|                     |                      |
|---------------------|----------------------|
| Decorating textiles | <a href="#">D06Q</a> |
|---------------------|----------------------|

## D06M 13/525

**Embossing; Calendering; Pressing**

### References

#### Informative references

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

|          |                            |
|----------|----------------------------|
| Moulding | <a href="#">D06M 23/14</a> |
|----------|----------------------------|

## D06M 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](#))**

### Definition statement

*This place covers:*

The graft polymerisation of monomers containing carbon-carbon double bonds onto fibrous materials according to the nature of the substrate.

This graft polymerisation can be carried out by using wave energy or particle radiation, for example plasma, microwaves, UV light, gamma rays etc...([D06M 14/18-D06M 14/34](#)).

### Relationships with other classification places

An overlapping might occur with [D06M 10/00](#) and its subgroups.

Graft polymerisation on to unshaped polymers [C08F 251/00-C08F 292/00](#)

### References

#### Informative references

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

|                                 |  |
|---------------------------------|--|
| Grafting of polymeric materials | <a href="#">C08F 251/00</a> ,<br><a href="#">C08F 292/00</a> |
|---------------------------------|--|

### Special rules of classification

Concerning classification in this group, it is recommended to also allocate the Indexing Code corresponding to the nature of the fibrous material, i.e. [D06M 2101/00-D06M 2101/40](#).

## D06M 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](#)})**

### Definition statement

*This place covers:*

The treatment of fibrous materials with macromolecular compounds.

### Special rules of classification

In case of treating compositions comprising a mixture of macromolecular and non-macromolecular and/or inorganic compounds it is recommended to classify both in [D06M 15/00](#) and its subgroups and [D06M 13/00](#) and its subgroups and/or [D06M 11/00](#) and its subgroups.

In case of treating compositions comprising copolymers or block polymers, then it is recommended to allocate the relevant class for each monomer or each block of monomers.

## D06M 15/03

### Polysaccharides or derivatives thereof

#### Definition statement

*This place covers:*

The treatment of fibrous materials with polysaccharides or derivatives thereof that cannot be covered by subgroups [D06M 15/035-D06M 15/13](#).

For example documents disclosing treatment with chitin, chitosan or cyclodextrin are classified in this group.

#### References

##### Limiting references

*This place does not cover:*

|   |                             |
|---|-----------------------------|
| Treatment of fibrous materials with low molecular weight sugars, glucose, saccharose etc. | <a href="#">D06M 13/148</a> |
|---|-----------------------------|

##### Informative references

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

|                 |                      |
|-----------------|----------------------|
| Polysaccharides | <a href="#">C08B</a> |
|-----------------|----------------------|

## D06M 15/21

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

#### Definition statement

*This place covers:*

The treatment of fibrous materials with macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds.

#### Special rules of classification

It is recommended to allocate this group only in case the monomers are not well defined or in case that too many monomers are disclosed, or in case it is not possible to classify in subgroups: the most essential relevant classes in subgroups are given and are completed by [D06M 15/21](#).

**D06M 15/3562****{containing nitrogen}****Definition statement***This place covers:*

The treatment of fibrous materials with macromolecular compounds obtained by reaction of unsaturated compounds having pendant groups containing nitrogen atom, for example vinylamine or vinylpyridine.

Polymers of vinyl allyl amine are also classified in this group.

**D06M 15/3568****{containing silicon}****Definition statement***This place covers:*

The treatment of fibrous materials with macromolecular compounds obtained by reaction of unsaturated compounds having pendant groups containing silicon atoms, for example, vinyl polydimethylsiloxane.

**Relationships with other classification places**

In this group an overlapping might occur with [D06M 15/643](#) and its subgroups.

**Special rules of classification**

Polymers resulting from the polymerisation of unsaturated compounds bearing silicon should be classified here, i.e. polymers with a -C-C- main chain and pending silicon groups, like polysiloxane groups.

It sometimes happens that the pending polysiloxane chain is longer than the -C-C- chain or that the polysiloxane chain is particular or essential to the function of the polymer, then in that case it is recommended to also allocate a class in [D06M 15/643](#) or its subgroups.

**D06M 15/37****Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds****Definition statement***This place covers:*

The treatment of fibrous materials with macromolecular substances obtained by polycondensation.

**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 | <a href="#">C08G</a> |
|---|----------------------|

### Special rules of classification

This group is allocated only in case the polymers are not clearly defined or too many possibilities are disclosed: the most essential classes in subgroups are given and completed by [D06M 15/37](#).

## D06M 15/412

{sulfonated}

### Definition statement

*This place covers:*

The treatment of fibrous materials with sulfonated phenol-aldehyde or sulfonated phenol-ketone which are sometimes also named syntans.

### 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:*

|                                |   |
|--------------------------------|---|
| "syntan" or "synthetic tannin" | "sulfonated phenol formaldehyde condensation product" |
|--------------------------------|---|

## D06M 15/53

Polyethers (polyacetals [D06M 15/39](#))

### Definition statement

*This place covers:*

The treatment of fibrous materials with polyethers, like polyethylene glycol.

### Relationships with other classification places

In this group, overlapping might occur with [D06M 13/17](#).

### Special rules of classification

When the chain length is not clearly defined or very broadly defined, then it is recommended to also classify in [D06M 13/17](#).

## D06M 15/643

containing silicon in the main chain

### Definition statement

*This place covers:*

The treatment of fibrous materials with macromolecular substances comprising silicon in the main chain like polydimethylsiloxane.

### Relationships with other classification places

In this group overlapping might occur with [D06M 15/3568](#).

### Special rules of classification

When it is not clear what the main chain is, either a -C-C- polymer having Si pending groups or a polysiloxane polymer, then it is recommended to also classify in [D06M 15/3568](#).

## D06M 15/693

with natural or synthetic rubber, or derivatives thereof

### Definition statement

*This place covers:*

The treatment of fibrous materials with synthetic or natural rubber or its derivatives, like latexes.

### Relationships with other classification places

An overlapping might occur with [D06N](#) in case it is not clear whether the fibrous material is impregnated or coated with rubber ([D06N 3/00](#)).

### Synonyms and Keywords

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

- "latex" and "rubber"

## D06M 15/70

combined with mechanical treatment

### 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:*

|                     |                      |
|---------------------|----------------------|
| Decorating textiles | <a href="#">D06Q</a> |
|---------------------|----------------------|

## D06M 15/705

Embossing; Calendering; Pressing

### References

#### Informative references

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

|          |                            |
|----------|----------------------------|
| Moulding | <a href="#">D06M 23/14</a> |
|----------|----------------------------|

## D06M 16/00

Biochemical treatment of fibres, threads, yarns, fabrics, or fibrous goods made from such materials, e.g. enzymatic

### Definition statement

*This place covers:*

The treatment of fibrous materials with either living microorganisms like enzymes or bacteria or compounds which have an activity towards living microorganisms like compositions for killing living microorganisms or insect repellent compositions, antibacterial compositions, antimicrobial compositions, fungicide compositions and antifouling compositions.

## Relationships with other classification places

An overlapping might occur with biocide compositions in general [A01N](#) or methods for sterilising or disinfecting [A61L](#).

## References

### Informative references

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

|                             |                            |
|-----------------------------|----------------------------|
| Biocides                    | <a href="#">A01N 25/00</a> |
| Disinfection, sterilisation | <a href="#">A61L</a>       |

## Special rules of classification

In addition to this group, it is recommended to allocate a class or classes in [D06M](#) corresponding to the chemical nature of the compound itself or individual compounds of the composition when possible.

## D06M 16/003

{with enzymes or microorganisms}

### Definition statement

*This place covers:*

The treatment of textile materials with enzymes like cellulases, lipases, endoglucanases, proteases etc... and/or living or dead microorganisms.

## References

### Informative references

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

|   |                            |
|---|----------------------------|
| Enzymes, enzymes compositions                                       | <a href="#">C12N 9/00</a>  |
| Immobilized enzymes   | <a href="#">C12N 11/00</a> |
| Bleaching of textile materials with compositions comprising enzymes | <a href="#">D06L 4/40</a>  |

## D06M 16/006

{with wool-protecting agents; with anti-moth agents}

### Definition statement

*This place covers:*

The treatment of wool with compositions or compounds having a protecting effect against living organisms like moth but also bacteria or living organisms which might deteriorate wool.

## Special rules of classification

Despite the fact that this group is only dedicated to wool-protecting treatments, it is recommended to also allocate the relevant Indexing Code corresponding to wool [D06M 2101/12](#)



## D06M 17/00

### Producing multi-layer textile fabrics

#### Definition statement

*This place covers:*

The production of multilayer textile fabrics by superposition of different layers which are bonded by chemical treatment; i.e. an adhesive layer is applied between the different layers.

#### Relationships with other classification places

In this class an overlapping might occur with laminates, [B32B](#).

#### References

##### Informative references

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

|                           |                             |
|---------------------------|-----------------------------|
| Linings for garments      | <a href="#">A41D 27/02</a>  |
| Joining of textile layers | <a href="#">B29C 66/729</a> |
| Laminates                 | <a href="#">B32B</a>        |
| Adhesive compositions     | <a href="#">C09J</a>        |

## D06M 19/00

### Treatment of feathers

#### Definition statement

*This place covers:*

The treatment of feathers at any stage, i.e. their preparation for an ulterior use, e.g. removing waxes or any chemical treatment to improve or modify their properties.

#### References

##### Limiting references

*This place does not cover:*

|                        |                      |
|------------------------|----------------------|
| The dyeing of feathers | <a href="#">D06P</a> |
|------------------------|----------------------|

## D06M 23/00

### Treatment of fibres, threads, yarns, fabrics or fibrous goods made from such materials, characterised by the process

#### Definition statement

*This place covers:*

The treatment of fibrous materials by specific processes or when the chemical compound or composition is applied in a particular form, e.g. in powder form, encapsulated, in the form of foam etc.

## Relationships with other classification places

In this class an overlapping might occur with [D06B](#), treating textile materials by liquids, gases or vapours.

### D06M 23/005

**{Applying monomolecular films on textile products like fibres, threads or fabrics}**

#### Definition statement

*This place covers:*

The treatment of textile material by forming monomolecular layers of compounds on the textile surface; i.e. very thin layers, in general of one molecule thickness.

The layer by layer deposition of molecules on the textile surface is also classified here: e.g. deposition of an anionic layer which is covered by a cationic layer, this might repeated several times.

### D06M 23/08

**Processes in which the treating agent is applied in powder or granular form (adhesives for multi-layer textile fabrics [D06M 17/00](#))**

#### Definition statement

*This place covers:*

The treatment of textile materials with treating agents in granular form, like powders and in any size of particles, i.e. also including nanoparticles or microparticles.

#### References

##### Limiting references

*This place does not cover:*

|  |                            |
|--|----------------------------|
| The treatment of textile materials with encapsulated treating agents | <a href="#">D06M 23/12</a> |
|--|----------------------------|

##### Informative references

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

|  |                            |
|--|----------------------------|
| Production of nanoparticles with supercritical fluid | <a href="#">B01J 3/008</a> |
| Nanotechnology in general                            | <b>Y01N</b>                |

### D06M 23/16

**Processes for the non-uniform application of treating agents, e.g. one-sided treatment; Differential treatment**

#### 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:*

|                     |                      |
|---------------------|----------------------|
| Decorating textiles | <a href="#">D06Q</a> |
|---------------------|----------------------|