

E04B

GENERAL BUILDING CONSTRUCTIONS; WALLS, e.g. PARTITIONS; ROOFS; FLOORS; CEILINGS; INSULATION OR OTHER PROTECTION OF BUILDINGS (border constructions of opening in walls, floors or ceilings [E06B 1/00](#); {electromagnetic shielding [H05K 9/0001](#)})

Definition statement

This place covers:

Building constructions, i.e. construction of edifices, their structural or non structural walls, their roof structures, their floor structures, suspended or false ceilings;

Insulation of buildings or other protection of buildings.

References

Limiting references

This place does not cover:

Railway vehicles	B61
Motor vehicles	B62D
Ships or other waterborne vessels	B63
Aircrafts; Cosmonautics	B64
Bridges	E01D
Foundations	E02D
Structural elements for building construction	E04C
Roof coverings	E04D
Finishing work on buildings, e.g. lining, flooring	E04F
Scaffolding; Shuttering	E04G
Structures specially adapted for buildings for special purposes, general layout of buildings, e.g. modular co-ordination; Masts; Tents; Swimming pools	E04H
Small buildings for limited occupation, e.g. kiosks, waiting shelters for bus stops	E04H 1/12
Buildings or shelters adapted to withstand or provide protection against abnormal external influences, e.g. war-like action, earthquakes, hurricanes	E04H 9/00
Border constructions of opening in walls, floors or ceilings	E06B 1/00
Devices for fastening or securing general constructional elements or machine parts together	F16B
Electromagnetic shielding	H05K 9/0001

E04B 1/00

Constructions in general; Structures which are not restricted either to walls, e.g. partitions, or floors or ceilings or roofs (scaffolds, shutterings [E04G](#); structures specially adapted for buildings for special purposes, general layout of buildings, e.g. modular co-ordination, [E04H](#))

Definition statement

This place covers:

Building constructions in general, i.e. construction of edifices; Structures of buildings which are not restricted either to walls, or floors or ceilings or roofs.

Special structures and methods of construction of buildings, e.g. arched, movable, collapsible, box-like structures; Connections for building structures, e.g. connections of slab-shaped or elongated members; Insulation or other protection of buildings, e.g. against water-damage, heat, sound, fire.

References

Limiting references

This place does not cover:

Partitions per se	E04B 2/00
Floor structures per se	E04B 5/00
Roof structures per se	E04B 7/00
Suspended or false ceilings per se	E04B 9/00
Foundations per se	E02D
Roof coverings per se	E04D
Scaffolds, shutterings	E04G
Structures specially adapted for buildings for special purposes; General layout of buildings, e.g. modular co-ordination	E04H

E04B 1/0007

{Base structures; Cellars}

Definition statement

This place covers:

Cellars, basements, also retrofitted under existing buildings;

Crawl spaces.

Relationships with other classification places

This subgroup covers foundations with the emphasis on the connection to a superstructure, as opposed to [E02D](#) where the emphasis is on the connection to the ground;

References

Limiting references

This place does not cover:

Foundations per se	E02D
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Drainage and exterior waterproofing of foundation	E02D 31/00
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Special rules of classification

Exterior insulation of cellars is classified here.

E04B 1/0023

{Building characterised by incorporated canalisations ([E04B 1/34869](#) takes precedence)}

Definition statement

This place covers:

Building with passages for fluids integrally formed with structural elements of the building.

References

Limiting references

This place does not cover:

Box-like or cell-like units for special technical purposes	E04B 1/34869
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Informative references

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

Building envelopes with canalisations for insulation purposes	E04B 1/74
Special adaptation of floor structures for incorporating ducts	E04B 5/48
Domestic plumbing installations for combinations of baths, showers, sinks, wash-basins, closets, urinals, or the like	E03C 1/01
Slab-shaped or panel-shaped building elements for locating conduits	E04C 2/52
Vertical ducts	E04F 17/00
Canalisation per se	F16L
Conduits for ventilation, heating systems or air-conditioning	F24F

E04B 1/0046

{Loggias}

Definition statement

This place covers:

Loggias, wintergardens, enclosed balconies, verandas.

References

Informative references

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

Greenhouses	A01G 9/14
Glass roofs	E04D 3/06

Bay windows	E06B 1/363
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E04B 1/02

Structures consisting primarily of load-supporting, block-shaped, or slab-shaped elements ([E04B 1/32](#) - [E04B 1/36](#) take precedence)

Definition statement

This place covers:

Structures consisting primarily of large load-supporting panels or large load-supporting panel-shaped blocks.

References

Limiting references

This place does not cover:

Arched, vaulted or folded structures	E04B 1/32
Extraordinary structures	E04B 1/34
Structures characterised by moveable, separable or collapsible parts	E04B 1/343
Structures covering a large free area	E04B 1/346
Structures composed of e.g. box-like or cell-like units	E04B 1/348
Extraordinary methods of construction	E04B 1/35
Bearings or like supports allowing movement	E04B 1/36
Masonry walls	E04B 2/02

E04B 1/12

the elements consisting of other material

Definition statement

This place covers:

Structures with elements consisting of specified materials other than concrete, stone-like material, metal or wood.

E04B 1/14

the elements being composed of two or more materials (of reinforced concrete [E04B 1/04](#))

Definition statement

This place covers:

Structures with elements consisting of the combination of two or more specified structural materials.

References

Limiting references

This place does not cover:

Structures consisting primarily of reinforced concrete block-shaped or slab-shaped elements	E04B 1/04
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E04B 1/16

Structures made from masses, e.g. of concrete, cast or similarly formed in situ with or without making use of additional elements, such as permanent forms, substructures to be coated with load-bearing material ([E04B 1/32](#) - [E04B 1/36](#) take precedence)

References

Limiting references

This place does not cover:

Arched, vaulted or folded structures	E04B 1/32
Extraordinary structures	E04B 1/34
Structures characterised by moveable, separable or collapsible parts	E04B 1/343
Structures covering a large free area	E04B 1/346
Structures composed of e.g. box-like or cell-like units	E04B 1/348
Extraordinary methods of construction	E04B 1/35
Bearings or like supports allowing movement	E04B 1/36

E04B 1/161

{with vertical and horizontal slabs, both being partially cast in situ}

References

Informative references

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

Stacked prefabricated cells, e.g. with concrete poured between the cells	E04B 1/34807
Permanent inflatable forms for concrete	E04G 11/04

Special rules of classification

Use [E04B 2/84](#) - [E04B 2002/8694](#) for classifying additional information of details of lost formwork of cast in-situ walls.

E04B 1/163

{with vertical and horizontal slabs, only the vertical slabs being partially cast in situ ([E04B 2/86](#) takes precedence)}

References**Limiting references**

This place does not cover:

Walls made by casting in-situ in permanent forms	E04B 2/86
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Special rules of classification

Use [E04B 2/84](#) - [E04B 2002/8694](#) for classifying additional information of details of lost formwork of cast in-situ walls.

E04B 1/165

{with elongated load-supporting parts, cast in situ ([E04B 1/161](#), [E04B 1/163](#) and [E04B 1/164](#) take precedence)}

References**Limiting references**

This place does not cover:

Structures made from masses with vertical and horizontal slabs, both being partially cast in situ	E04B 1/161
Structures made from masses with vertical and horizontal slabs, only the vertical slabs being partially cast in situ	E04B 1/163
Structures made from masses with vertical and horizontal slabs, only the horizontal slabs being partially cast in situ	E04B 1/164

E04B 1/166

{with curved surfaces, at least partially cast in situ in order to make a continuous concrete shell structure ([E04B 1/169](#) takes precedence)}

References**Limiting references**

This place does not cover:

Structures made from masses cast with inflatable flexible permanent forms	E04B 1/169
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E04B 1/18

Structures comprising elongated load-supporting parts, e.g. columns, girders, skeletons ([E04B 1/32](#) - [E04B 1/36](#) take precedence; elongated load-supporting parts as elements, trusses, truss-like structures [E04C 3/00](#))

Definition statement

This place covers:

Structures comprising elongated load-supporting parts, e.g. columns, beams, girders, skeletons.

References

Limiting references

This place does not cover:

Arched, vaulted or folded structures	E04B 1/32
Extraordinary structures	E04B 1/34
Structures characterised by moveable, separable or collapsible parts	E04B 1/343
Structures covering a large free area	E04B 1/346
Structures composed of e.g. box-like or cell-like units	E04B 1/348
Extraordinary methods of construction	E04B 1/35
Bearings or like supports allowing movement	E04B 1/36
Elongated load-supporting parts as elements, columns, beams, girders, trusses, truss-like structures	E04C 3/00

Informative references

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

Connection of bar-shaped building elements, i.e. of smaller cross-section	E04B 1/58
Log cabins	E04B 2/701

Special rules of classification

Structures made from a horizontal or vertical juxtaposition of elongated elements other than wood are classified in [E04B 1/18](#).

Structures made from a juxtaposition of porticos or stacks of frames are only classified in [E04B 1/18](#), irrespective of the material of the elongated elements.

E04B 1/19

Three-dimensional [3D] framework structures

Definition statement

This place covers:

Space frames, i.e. truss-like lightweight structures constructed from interconnected struts in a geometric pattern spanning a large area, with either short struts connected at the nodes or continuous struts folded at the nodes, wherein the frames are not habitable or accessible upon construction.

References

Informative references

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

Vaulted roof structures with folded or grid-like formations acting as shell structures	E04B 7/10
Cosmonautic vehicles	B64G 1/00
Trusses	E04C 3/02
Truss-like towers or mats	E04H 12/00

Special rules of classification

Documents showing large parts of the space frame are classified here, even if they show details of component parts or their connections. Use [E04B 1/1903](#) - [E04B 2001/1996](#) for classifying additional information of the details of the component parts of the space frame, their connections and the type of space frame for the documents classified in [E04B 1/19](#).

E04B 1/1903

{Connecting nodes specially adapted therefor}

References

Informative references

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

Node corner connector for furniture	A47B 47/0016
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Special rules of classification

Use [E04B 2001/1924](#) - [E04B 2001/1996](#) for classifying additional information of the details of the component parts of the space frame, their connections and the type of space frame for the documents classified in [E04B 1/1903](#)

E04B 1/1906

{with central spherical, semispherical or polyhedral connecting element}

Special rules of classification

Use [E04B 2001/1924](#) - [E04B 2001/1996](#) for classifying additional information of the details of the component parts of the space frame, their connections and the type of space frame for the documents classified in [E04B 1/1906](#)

E04B 1/1909

{with central cylindrical connecting element}

Special rules of classification

Use [E04B 2001/1924](#) - [E04B 2001/1996](#) for classifying additional information of the details of the component parts of the space frame, their connections and the type of space frame for the documents classified in [E04B 1/1909](#).

E04B 1/1912**{with central cubical connecting element}****Special rules of classification**

Use [E04B 2001/1924](#) - [E04B 2001/1996](#) for classifying additional information of the details of the component parts of the space frame, their connections and the type of space frame for the documents classified in [E04B 1/1912](#).

E04B 1/20**the supporting parts consisting of concrete, e.g. reinforced concrete, or other stonelike material****Definition statement***This place covers:*

Structures with posts and beams made from concrete.

References**Limiting references***This place does not cover:*

Space frames	E04B 1/19
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Special rules of classification

Documents showing large parts of the structure are classified here, even if they show details of connections.

E04B 1/24**the supporting parts consisting of metal****Definition statement***This place covers:*

Structures with posts and beams made of metal

References**Limiting references***This place does not cover:*

Space frames	E04B 1/19
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Special rules of classification

Documents showing large parts of the structure are classified here, even if they show details of component parts and their connections. Use [E04B 1/2403](#) - [E04B 2001/2496](#) for classifying additional information of the details of the component parts and their connections of the structures classified in [E04B 1/24](#).

E04B 1/2403**{Connection details of the elongated load-supporting parts}****References****Limiting references***This place does not cover:*

Connection of bar-shaped, i.e. of smaller cross-section, building elements	E04B 1/58
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Special rules of classification

Use [E04B 2001/2466](#) - [E04B 2001/2496](#) for classifying additional information of the documents classified in [E04B 1/2403](#).

E04B 1/26**the supporting parts consisting of wood****Definition statement***This place covers:*

Structures with posts and beams made of wood.

References**Limiting references***This place does not cover:*

Space frames	E04B 1/19
Log cabins	E04B 2/701
Caps for the protection of the ends of wooden beams against humidity	E04B 5/12

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

Load-bearing walls with posts of wood	E04B 2/706
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Special rules of classification

Documents showing large parts of the structure are classified here, even if they show details of component parts and their connections; Use [E04B 1/2604](#) - [E04B 2001/2696](#) for classifying additional information of the documents classified in [E04B 1/26](#).

E04B 1/2604**{Connections specially adapted therefor (shear dowels [E04B 1/486](#), [E04B 1/49](#))}****References****Limiting references***This place does not cover:*

Shear dowels for wood	E04B 1/486
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Shear dowels for wood with self-penetrating parts	E04B 1/49
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Special rules of classification

Use [E04B 2001/2696](#) for classifying additional information of the documents classified in [E04B 1/2604](#).

E04B 1/2608

{Connectors made from folded sheet metal ([E04B 1/2612](#) takes precedence)}

References

Limiting references

This place does not cover:

Joist hangers	E04B 1/2612
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E04B 2001/2644

{Brackets, gussets or joining plates}

References

Informative references

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

Interlocking connectors, e.g. with hooks or dovetails, added to the elongated wooden members	E04B 2001/2628
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E04B 2001/2676

{Connector nodes}

References

Informative references

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

Connection node with interlocking of specially shaped wooden members, e.g. puzzle type connection	E04B 2001/262
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E04B 1/28

the supporting parts consisting of other material

Definition statement

This place covers:

Structures with posts and beams made of specified material other than concrete, stone-like material, metal, wood.

References

Limiting references

This place does not cover:

Space frames	E04B 1/19
Structures with posts and beams made of the combination of at least two different materials having a structural function	E04B 1/30

E04B 1/30

the supporting parts being composed of two or more materials; Composite steel and concrete constructions (of reinforced concrete [E04B 1/20](#))

Definition statement

This place covers:

Structures with posts and beams made of at least two specified different materials having a structural function, e.g. a steel pipe filled with concrete

References

Limiting references

This place does not cover:

Space frames	E04B 1/19
Structures made of elongated load supporting parts made of reinforced concrete	E04B 1/20

E04B 1/32

Arched structures; Vaulted structures; Folded structures ({[E04B 1/345](#) takes precedence;}) vaulted roofs [E04B 7/08](#))

Definition statement

This place covers:

Arched structures; Vaulted structures; Arched or vaulted structures with a folded surface.

References

Limiting references

This place does not cover:

Structures deriving their rigidity from concertina folds	E04B 1/345
Vaulted roof structures	E04B 7/08

Special rules of classification

Use [E04B 2001/3217](#) - [E04B 2001/3294](#) for classifying additional information of the component parts, their connections and the type of structures of the documents classified in [E04B 1/32](#) - [E04B 1/3211](#).

Do not use [E04B 2001/0061](#) to classify the documents of [E04B 1/32](#) - [E04B 1/3211](#).

Looping references between [E04B 1/32](#) and [E04B 7/08](#) have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as follows: the reference to [E04B 7/08](#) is considered limiting.

E04B 1/3205

{Structures with a longitudinal horizontal axis, e.g. cylindrical or prismatic structures}

Definition statement

This place covers:

Structures in the shape of a portion of a cylinder, with a smooth or faceted surface.

E04B 1/3211

{Structures with a vertical rotation axis or the like, e.g. semi-spherical structures}

Definition statement

This place covers:

Structures in the shape of a portion of a sphere, with a smooth or faceted surface.

E04B 1/34

Extraordinary structures, e.g. with suspended or cantilever parts supported by masts or tower-like structures enclosing elevators or stairs; Features relating to the elastic stability ([E04B 1/342](#), [E04B 1/343](#), [E04B 1/348](#) take precedence; for floors [E04B 5/43](#); buildings for special purposes, e.g. withstanding earthquake, [E04H](#))

References

Limiting references

This place does not cover:

Structures covering a large free area	E04B 1/342
Structures characterised by movable, separable or collapsible parts	E04B 1/343
Structures composed of box-like or cell-like units	E04B 1/348
Floor structures of extraordinary design; Features relating to the elastic stability of floors	E04B 5/43
Buildings for special purposes, e.g. withstanding earthquakes	E04H

Special rules of classification

Exterior staircases retrofitted to buildings are classified in [E04B 1/34](#).

E04B 1/3412

{mainly supported by a central column or footing ([E04B 1/3416](#) takes precedence)}

References**Limiting references**

This place does not cover:

Structures comprising mainly a central support and a cantilevered roof	E04B 1/3416
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E04B 1/3416

{Structures comprising mainly a central support column and a cantilevered roof}

Definition statement

This place covers:

Mushroom-type structures or elongated structures having a "T" or "Y" vertical cross-section.

E04B 1/342

Structures covering a large free area, whether open-sided or not, e.g. hangars, halls (roof trusses [E04C 3/00](#); non-structural features for specified purposes, see the relevant groups of [E04H](#))

References**Limiting references**

This place does not cover:

Roof trusses	E04C 3/00
Non-structural features for specified purposes	E04H

E04B 1/343

Structures characterised by movable, separable, or collapsible parts, e.g. for transport (movable roof parts [E04B 7/16](#); floatable buildings [B63B](#); small prefabricated buildings, transportable as a whole, [E04H 1/12](#); small garages [E04H 6/02](#); tents or canopies, in general [E04H 15/00](#))

References**Informative references**

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

Movable roof parts	E04B 7/16
Floatable buildings	B63B
Containers	B65G
Small prefabricated buildings, transportable as a whole	E04H 1/12

Small garages	E04H 6/02
Tents or canopies, in general	E04H 15/00

Special rules of classification

References [E04B 7/16](#), [B63B](#), [B65G](#), [E04H 1/12](#), [E04H 6/02](#) and [E04H 15/00](#) are non-limiting in subgroup [E04B 1/343](#). CPC will be corrected once this inconsistency is resolved in IPC.

Looping references between [E04B 1/343](#) and [E04H 6/02](#) have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as follows: both references are considered informative.

E04B 1/34305

{telescopic}

Definition statement

This place covers:

Structure with room-sized telescopic section extendable horizontally from a side of the structure or vertically from the top or bottom of the structure.

References

Informative references

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

Telescopic wheeled arched structures	E04B 1/3455
Telescopic roofs	E04B 7/166
Caravans or campers with telescopic sections	B60P 3/34
Swimming pools with movable roof sections	E04H 3/165

Special rules of classification

Structures with more than one telescopic section extendable each from different surfaces of the structure, or with telescopic sections comprising two or more nested sub-sections are classified here.

E04B 1/3431

{with only one level of nesting}

Definition statement

This place covers:

Structure with a single telescopic section extendable horizontally from a side of the structure or vertically from the top or bottom of the structure.

E04B 1/34315

{characterised by separable parts}

Special rules of classification

Structures formed of a combination of structural elongated elements and structural panels are classified here.

E04B 1/34321**{mainly constituted by panels}****Special rules of classification**

Use [E04B 1/61](#) - [E04B 2001/6195](#) for classifying additional information of the details of the connections of the panels.

E04B 1/34326**{mainly constituted by longitudinal elements}****Special rules of classification**

Use [E04B 1/58](#) - [E04B 2001/5893](#) for classifying additional information of the details of the connections of the longitudinal elements.

E04B 1/34336

{Structures movable as a whole, e.g. mobile home structures (vehicles comprising living accommodation for people, e.g. caravans, camping or like vehicles [B60P 3/32](#))}

Definition statement

This place covers:

Mobile home structures.

References**Limiting references**

This place does not cover:

Vehicle aspects of mobile homes	B60P 3/32
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Informative references

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

Structures composed of a number of box-like units	E04B 1/348
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E04B 1/34347**{Anchoring means therefor}****References****Informative references**

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

Ground anchors	E02D 5/80
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E04B 1/34363**{with provisions to raise or lower the whole structure}****Definition statement***This place covers:*

Structures with means for raising and lowering them above ground level;

Structures with means for retracting them into the ground and returning them to ground level.

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

Telescopic structures	E04B 1/34305
Buildings raisable in case of floods	E04H 9/145

E04B 1/344**with hinged parts****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Collapsible caravans	B60P 3/34
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Special rules of classificationUse [E04B 1/34336](#) for classifying additional information of documents showing mobile homes.Do not use [E04B 1/34321](#) to classify the documents of [E04B 1/344](#).**E04B 1/3441****{with articulated bar-shaped elements}****Special rules of classification**

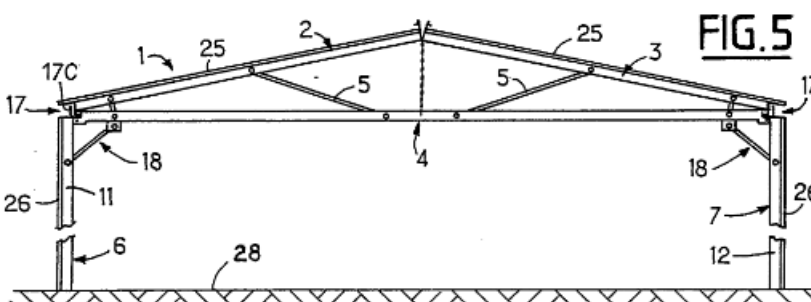
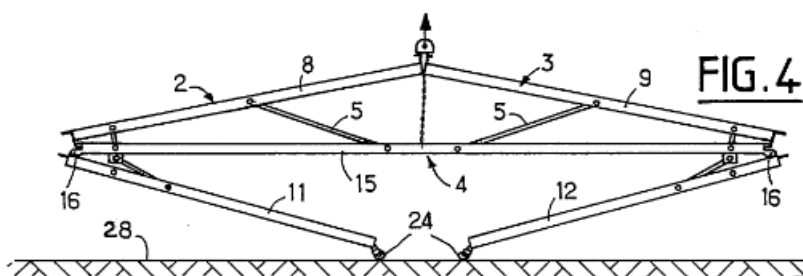
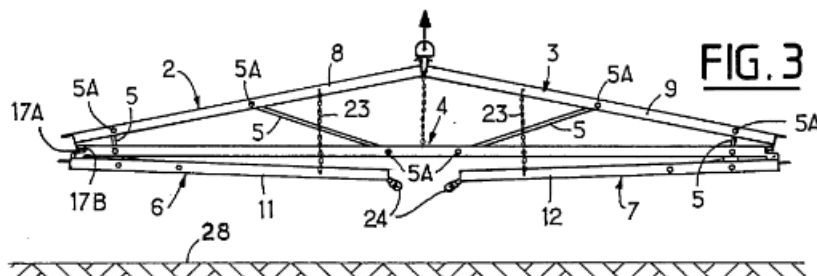
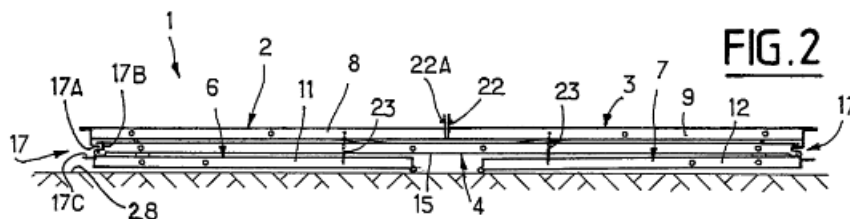
Collapsible articulated space frames are classified here.

E04B 1/3445**{foldable in a flat stack of parallel panels}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Collapsible large containers	B65D 88/52
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E04B 1/3447**{Portal- or saddle-shaped structures}****Definition statement***This place covers:*

Illustrative example of the subject matter classified in this subgroup:

**E04B 1/3448****{with rotating shell-forming segments}****Definition statement***This place covers:*

Structures with rotating shell-forming segments, e.g. armadillo plates type structure.

Definition statement

Illustrative example of the subject matter classified in this subgroup:

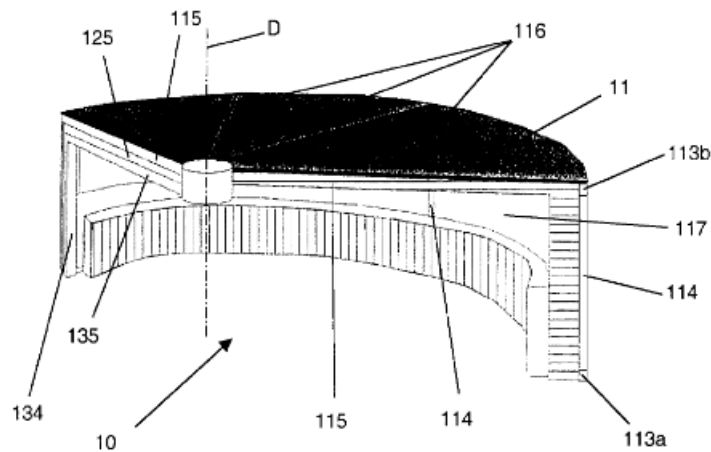


figure 1

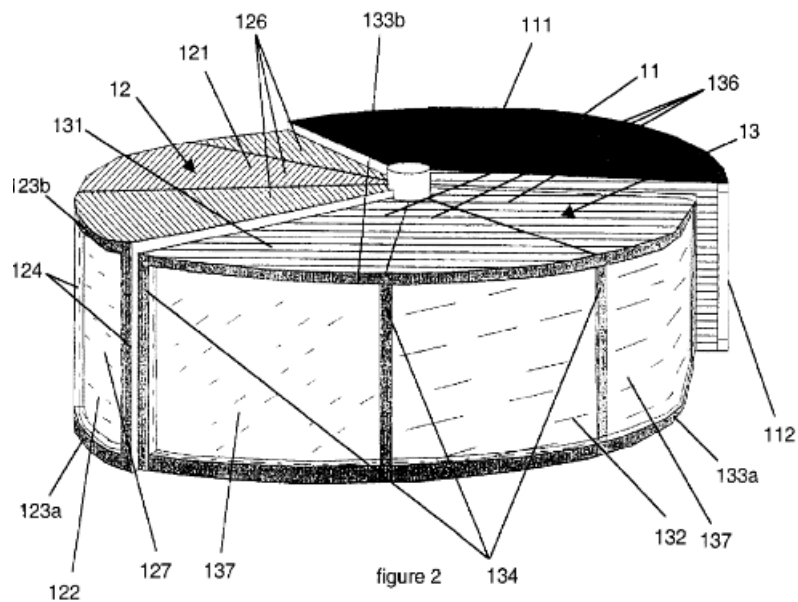


figure 2

References

Informative references

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

Roof structures with movable sections	E04B 7/16
Swimming pools with movable roof sections	E04H 3/165

E04B 1/3455**{Wheeled arch-type structures}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Roofs with movable sections	E04B 7/16
Greenhouses with sliding roofs	A01G 9/16
Weather protection for road works	E01C 23/03
Weather protection for building works	E04G 21/28
Swimming pools with movable roof sections	E04H 3/165

Special rules of classification

Half-arches wheeled at one extremity against a building wall and at the other end on the ground are also classified here.

E04B 1/346**Rotary buildings; Buildings with rotary units, e.g. rooms****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Carousels for milking stations	A01K 1/126
Turntable for vehicles	B60S 13/02

Special rules of classification

Do not use [E04B 2001/0061](#) to classify the documents of [E04B 1/346](#).

E04B 1/348**Structures composed of units comprising at least considerable parts of two sides of a room, e.g. box-like or cell-like units closed or in skeleton form****Definition statement***This place covers:*

Structures composed of units comprising at least considerable parts of two sides of a room, e.g. box-like or cell-like units closed or in skeleton form, i.e. only the edges of the boxes or cells are materialized (only frame, no infill panels)

Special rules of classification

In [E04B 1/348](#) - [E04B 1/34861](#) use [E04B 2001/34876](#) - [E04B 2001/34892](#) for classifying additional information of documents showing sloping or barrel roof, or means allowing access to the structures.

E04B 1/34807**{Elements integrated in a skeleton}****Definition statement***This place covers:*

Box-like units resting on shelves or beams of a supporting structure;

Stacked cells with concrete poured between the cells.

E04B 1/34823**{the supporting structure consisting of concrete}****Definition statement***This place covers:*

Structures with the main vertical structural parts consisting of concrete.

E04B 1/3483**{the supporting structure consisting of metal}****Definition statement***This place covers:*

Structures with the main vertical structural parts consisting of metal.

E04B 1/34838**{the supporting structure consisting of wood}****Definition statement***This place covers:*

Structures with the main vertical structural parts consisting of wood.

E04B 1/34846**{the supporting structure consisting of other specified material, e.g. of plastics}****Definition statement***This place covers:*

Structures with the main vertical structural parts consisting of specified material other than concrete, metal, wood.

E04B 1/34853**{the supporting structure being composed of two or more materials}****Definition statement***This place covers:*

Structures with the main vertical structural parts consisting of the combination of two or more specified structural materials.

E04B 1/34869**{Elements for special technical purposes, e.g. with a sanitary equipment}****Definition statement***This place covers:*

Structures composed of units comprising at least considerable parts of two sides of a room where the units are pre-fitted for special technical purposes, e.g. with pre-fitted piping, plumbing, sanitary equipment or electrical wiring.

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

Structures composed of a number of box-like units	E04B 1/348
Combinations of baths, showers, sinks, wash-basins, closets or urinals	A47K 4/00
Plumbing installations for baths, douches, or the like	E03C 1/01
Panels serving for locating conduits	E04C 2/521
Ducts for receiving installation lines	E04F 17/08

Special rules of classification

Use [E04B 2001/34876](#) - [E04B 2001/34892](#) for classifying additional information of documents of [E04B 1/34869](#) showing sloping or barrel roof, or means allowing access to the structures.

E04B 1/35

Extraordinary methods of construction, e.g. lift-slab, jack-block ([E04B 1/34](#) takes precedence; falsework, shuttering for shaping walls, floors, ceilings or roofs in situ [E04G 11/04](#); conveying or assembling of building materials [E04G 21/00](#); working measures on existing buildings [E04G 23/00](#))

References**Limiting references***This place does not cover:*

Extraordinary structures	E04B 1/34
Falsework, shuttering for shaping walls, floors, ceilings or roofs in situ	E04G 11/04
Conveying or assembling of building materials	E04G 21/00
Working measures on existing buildings	E04G 23/00

Special rules of classification

Use [E04B 2001/3561](#) - [E04B 2001/3594](#) for classifying additional information of the documents of [E04B 1/35](#) - [E04B 1/3555](#).

E04B 1/3505

{characterised by the in situ moulding of large parts of a structure ([E04B 1/3511](#), [E04B 1/3516](#), [E04B 1/3522](#), [E04B 1/3533](#), [E04B 1/3544](#), [E04B 1/355](#) take precedence)}

References

Limiting references

This place does not cover:

Lift-slab; Extraordinary methods of construction characterised by a purely vertical lifting of floors or roofs or parts thereof	E04B 1/3511
Extraordinary methods of construction characterised by erecting a vertical structure and then adding the floors from top to bottom	E04B 1/3516
Extraordinary methods of construction characterised by raising a structure and then adding structural elements under it	E04B 1/3522
Extraordinary methods of construction characterised by the raising of hingedly-connected building elements, e.g. arches, portal frames	E04B 1/3533
Extraordinary methods of construction characterised by the use of a central column to lift and temporarily or permanently support structural elements	E04B 1/3544
Extraordinary methods of construction characterised by the tilting-up of whole buildings or sections thereof, e.g. walls, portal frames	E04B 1/355

Informative references

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

Structures made from masses cast in-situ	E04B 1/16
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E04B 1/3522

{characterised by raising a structure and then adding structural elements under it ([E04B 1/3511](#), [E04B 1/3516](#), [E04B 1/3533](#) take precedence)}

Definition statement

This place covers:

Structure raisable using temporary supports, e.g. scaffolding or lifting machines, or permanent supports.

References

Limiting references

This place does not cover:

Lift-slab; Extraordinary methods of construction characterised by a purely vertical lifting of floors or roofs or parts thereof	E04B 1/3511
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Extraordinary methods of construction characterised by erecting a vertical structure and then adding the floors from top to bottom	E04B 1/3516
Extraordinary methods of construction characterised by the raising of hingedly-connected building elements, e.g. arches, portal frames	E04B 1/3533

E04B 1/3527**{the structure being a roof}****Definition statement***This place covers:*

Method of construction whereby the walls are added under the raised roof, e.g. in order to enable work in dry conditions

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

Enlarging an existing structure	E04G 23/0266
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E04B 1/3533**{characterised by the raising of hingedly-connected building elements, e.g. arches, portal frames ([E04B 1/355](#) takes precedence)}****References****Limiting references***This place does not cover:*

Extraordinary methods of construction characterised by the tilting-up of whole buildings or sections thereof, e.g. walls, portal frames	E04B 1/355
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Informative references*Attention is drawn to the following places, which may be of interest for search:*

Structures with hinged parts	E04B 1/344
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E04B 1/3544

{characterised by the use of a central column to lift and temporarily or permanently support structural elements ([E04B 1/3516](#) and [E04B 1/355](#) take precedence)}

References**Limiting references**

This place does not cover:

Extraordinary methods of construction characterised by erecting a vertical structure and then adding the floors from top to bottom	E04B 1/3516
Extraordinary methods of construction characterised by the tilting-up of whole buildings or sections thereof, e.g. walls, portal frames	E04B 1/355

Informative references

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

Small buildings mainly supported by a central column or footing	E04B 1/3412
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E04B 1/36

Bearings or like supports allowing movement (for bridges [E01D 19/04](#); buildings with-standing earthquakes [E04H 9/02](#))

Definition statement

This place covers:

Bearings allowing movement of the supported structure due to exterior influences, but also allowing movement for the purpose of adjusting horizontal or angular position of the supported structure.

References**Limiting references**

This place does not cover:

Bearings for bridges	E01D 19/04
Buildings withstanding earthquakes	E04H 9/02

Informative references

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

Rubber bearings	F16F 1/36 , F16F 3/08
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E04B 1/38

Connections for building structures in general

Special rules of classification

Documents should only exceptionally be classified in [E04B 1/38](#), connections for general applications should be classified in subclass [F16B](#).

E04B 1/388

{Separate connecting elements (Connecting devices specially adapted for embedding in concrete [E04B 1/41](#); Dowels, i.e. members adapted to penetrate the surfaces of two parts and to take the shear stresses [E04B 1/48](#))}

References

Limiting references

This place does not cover:

Connecting devices specially adapted for embedding in concrete	E04B 1/41
Dowels, i.e. members adapted to penetrate the surfaces of two parts and to take the shear stresses	E04B 1/48

Informative references

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

Connecting or other auxiliary members for forms, falsework structures or shutterings	E04G 17/00
Releasable clips or clamps, hooks, wedges, wall-dowels, nails, bolts, rivets, screws, wood-screws	F16B

E04B 1/41

Connecting devices specially adapted for embedding in concrete or masonry ({joist hangers [E04B 1/2612](#); shear dowels [E04B 1/483](#);} spacers {other than masonry wall ties} for cavity walls [E04B 2/30](#), [E04B 2/44](#); connectors for reinforcing elements [E04C 5/16](#); fastening frames to the border of openings [E06B 1/56](#))

References

Limiting references

This place does not cover:

Joist hangers	E04B 1/2612
Shear dowels for concrete parts	E04B 1/483
Spacers other than masonry wall ties for cavity walls	E04B 2/30 , E04B 2/44
Connectors for reinforcing elements	E04C 5/16
Fastening frames to the border of openings	E06B 1/56

Informative references

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

Supporting devices for connector reinforcing rods for concrete walls	E04G 21/125
Spacers between rows of masonry blocks	E04G 21/1841 , E04B 2002/0282

Special rules of classification

Use [E04B 2001/4192](#) for classifying additional information of connecting devices which are attached to the concrete reinforcement members for the documents classified in [E04B 1/41](#) - [E04B 1/4178](#).

E04B 1/4114

{Elements with sockets ([E04B 1/4107](#) takes precedence)}

References**Limiting references**

This place does not cover:

Longitudinal elements having an open profile, with the opening parallel to the concrete or masonry surface, i.e. anchoring rails	E04B 1/4107
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E04B 1/4142

{with transverse hook- or loop-receiving parts ([E04B 1/415](#) takes precedence)}

References**Limiting references**

This place does not cover:

Elements with captive and extendable anchoring parts, e.g. spring-loaded bolts, hanging rings	E04B 1/415
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E04B 1/4171

{Nailable or non-threaded screwable elements (dowels [F16B 13/00](#))}

References**Limiting references**

This place does not cover:

Dowels for holding a fastener	F16B 13/00
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E04B 1/4178

{Masonry wall ties (with insulation-layer locating devices [E04B 1/7616](#); replacing or adding wall ties [E04G 23/0222](#))}

Definition statement

This place covers:

Separate tie rods embedded in the horizontal or vertical masonry joints, for tying a masonry wall to a non-masonry support, e.g. a concrete wall or posts, or for making a T-junction between two masonry walls.

References**Limiting references**

This place does not cover:

Masonry wall ties with insulation-layer locating devices	E04B 1/7616
Replacing or adding wall ties	E04G 23/0222

Informative references

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

Masonry blocs with integrated spacers or masonry walls with spacers not located in the masonry joints	E04B 2/02
Walls of framework or pillar-work with a brick veneer facing	E04B 2002/565

Special rules of classification

Use [E04B 2001/4192](#) for classifying additional information of connecting devices which are attached to the concrete reinforcement members.

Use [E04B 1/7616](#) for classifying additional information of connecting devices which are combined with insulation-layer locating devices.

E04B 1/4185

{for cavity walls with both wall leaves made of masonry (spacers for permanent forms [E04B 2/86](#))}

Definition statement

This place covers:

Separate tie rods embedded in horizontal or vertical masonry joints, for tying two parallel masonry walls together.

References**Limiting references**

This place does not cover:

Spacers for permanent forms	E04B 2/86
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Special rules of classification

Use [E04B 1/7616](#) for classifying additional information of connecting devices which are combined with insulation-layer locating devices.

E04B 1/486

{Shear dowels for wood ([E04B 1/49](#) takes precedence)}

References

Limiting references

This place does not cover:

Shear dowels with self-penetrating parts	E04B 1/49
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E04B 1/49

with self-penetrating parts, e.g. claw dowels

References

Informative references

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

Nail plates	F16B 15/0023
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E04B 1/541

{Joints substantially without separate connecting elements, e.g. jointing by inter-engagement}

References

Informative references

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

Welded, glued or the like joints, in general	F16B
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E04B 1/58

of bar-shaped building elements {(framework connections [E04B 1/21](#), [E04B 1/2403](#), [E04B 1/2604](#))}

Relationships with other classification places

Joints with emphasis on the bar-shaped element, as opposed to [F16B 7/00](#) where the emphasis is on the connector.

References

Limiting references

This place does not cover:

Connections of large longitudinal structural elements	E04B 1/21 , E04B 1/2403 , E04B 1/2604
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Informative references

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

Structures comprising elongated load-supporting parts, e.g. columns, girders, skeletons	E04B 1/18
Connections of rods	F16B 7/00

Special rules of classification

Use [E04B 2001/5862](#) - [E04B 2001/5893](#) for classifying additional information of the documents classified in [E04B 1/58](#) - [E04B 1/5818](#).

E04B 1/5825

{with a closed cross-section}

Special rules of classification

Use [E04B 2001/5862](#) - [E04B 2001/5893](#) and [E04B 2001/5856](#) for classifying additional information of the documents of [E04B 1/5825](#) - [E04B 1/585](#).

E04B 1/61

of slab-shaped building elements with each other

Relationships with other classification places

Joints with emphasis on the slab-shaped element, as opposed to [F16B 7/00](#) where the emphasis is on the connector.

References

Limiting references

This place does not cover:

Connections for structural concrete panels	E04B 1/043
Connections of sheet metal panels	F16B 5/00
Connections for furniture	F16B 12/00

Informative references

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

Joining sheets or plates	F16B 5/00
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Special rules of classification

Use [E04B 2001/6195](#) as additional information to classify slabs connected at an angle for documents classified in [E04B 1/61](#) - [E04B 1/6187](#) and [E04B 2001/6191](#).

E04B 1/6183

{with rotatable locking means co-operating with a recess}

References

Informative references

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

Locks for sliding doors with bolt pivoting about an axis perpendicular to the wings	E05B 65/0817
Rotating connectors	F16B 5/0092 , F16B 12/2009

E04B 1/62

Insulation or other protection; Elements or use of specified material therefor (chemical compositions [C01](#) - [C11](#); implements for applying insulation or sealings [E04F 21/00](#); buildings to withstand, or to provide protection against, external undesired influences [E04H 9/00](#); sealing pipes in walls or partitions [F16L 5/02](#); shielding against dangerous radiation [G21F](#))

Definition statement

This place covers:

Insulation or other protection for buildings in general; Elements or use of specified material for insulation of buildings or other protection of buildings.

References

Limiting references

This place does not cover:

Insulation of partition walls	E04B 2/00
Insulation of floor structures	E04B 5/00
Insulation of roofs	E04B 7/00 , E04D 13/16
Insulation of suspended ceilings	E04B 9/00
Chemical compositions	C01 - C11
Insulation of floorings, e.g. floating floors	E04F 15/18
Implements for applying insulation or sealings	E04F 21/00
Buildings to withstand or to provide protection against external undesired influences	E04H 9/00
Sealing pipes in walls or partitions	F16L 5/02
Shielding against dangerous radiation	G21F

E04B 1/64

for making damp-proof; Protection against corrosion (sealings [E04B 1/66](#))

References**Limiting references**

This place does not cover:

Sealings	E04B 1/66
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E04B 1/642

{Protecting metallic construction elements against corrosion (for concrete reinforcing elements made of steel [E04C 5/01](#); anodic or cathodic protection [C23F 13/00](#))}

References**Limiting references**

This place does not cover:

Anodic or cathodic protection	C23F 13/00
Protection of concrete reinforcing elements made of steel	E04C 5/01

E04B 1/644

{Damp-proof courses (in combination with lintels [E04C 3/02](#))}

Definition statement

This place covers:

Damp-proof courses installed during construction of the structure, also retro-fitted e.g. by driving plates in masonry joints.

References**Limiting references**

This place does not cover:

Damp-proof courses in combination with lintels	E04C 3/02
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Informative references

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

Sealing membranes, sealing coatings	E04B 1/66
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E04B 1/646

{obtained by removal and replacement of a horizontal layer of an existing wall}

Definition statement

This place covers:

Damp-proof courses made of a plate, sheet, or hardening composition, e.g. mortar.

E04B 1/648

{obtained by injection or infiltration of water-proofing agents into an existing wall}

Special rules of classification

Documents with details of the composition and manufacture of water-proofing agents should be additionally classified in the relevant classes for these compositions, e.g. [C08L](#) for bituminous compositions

E04B 1/66

Sealings ({damp-proof courses [E04B 1/644](#); fire-proof sealings [E04B 1/948](#);} additions of anti-leak properties to plaster [C04B](#); bituminous sealing masses [C08L 95/00](#); sealings for hydraulic engineering work in general [E02B 3/16](#); against ground humidity or ground water [E02D 31/02](#); coverings against rain or other precipitations of the atmosphere [E04D](#))

Definition statement

This place covers:

Sealing membranes or coatings for buildings in general.

References**Limiting references**

This place does not cover:

Damp-proof courses	E04B 1/644
Fire-proof sealings	E04B 1/948
Additions of anti-leak properties to plaster	C04B
Bituminous sealing masses	C08L 95/00
Sealings for hydraulic engineering work in general	E02B 3/16
Sealings against ground humidity or ground water	E02D 31/02
Roof coverings against rain or other precipitations of the atmosphere	E04D

Informative references

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

Manufacture of sealing foils	B29C , B29D , B32B , C08J , D06N
Composition of material	C08G , C09D

Sealing in water management	E02B 3/00
Repairs, e.g. by sealing impregnation	E04G 23/02
Water-proofing of tunnels	E21D 11/38
Sealing where pipes, cables pass through walls or partitions	F16L 5/02

Special rules of classification

Documents with details of the composition or manufacture of sealing agents should be additionally classified in the relevant classes for these compositions.

E04B 1/68

of joints, e.g. expansion joints (packing for joints in roads or airfields [E01C 11/02](#); expansion joints for bridges [E01D 19/06](#); sealing joints between foundation piles [E02D 5/14](#); joints in foundation structures [E02D 29/16](#); devices for sealing the spaces or joints between roof-covering elements [E04D 1/36](#); sealing joints between roof-covering elements [E04D 3/38](#); {construction of joints for flooring or floor layers composed of a number of similar elements [E04F 15/02005](#)}; construction of joints for flooring or floor layers made of masses in situ [E04F 15/14](#))

References

Limiting references

This place does not cover:

Machines for inserting or removing sealing strips	B23P 19/047
Tools for inserting or removing sealing strips	B25B 27/0092
Packing for joints in roads or airfields	E01C 11/02
Expansion joints for bridges	E01D 19/06
Sealing joints between foundation piles	E02D 5/14
Joints in foundation structures	E02D 29/16
Devices for sealing the spaces or joints between roof-covering elements	E04D 1/36
Sealing joints between roof-covering elements	E04D 3/38
Construction of joints for flooring or floor layers composed of a number of similar elements	E04F 15/02005
Construction of joints for flooring or floor layers made of masses in situ	E04F 15/14
Repairing sealings of joints	E04G 23/02

Informative references

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

Sealing of joints in water management	E02B 3/16
Sealing in mechanical engineering	F16J 15/00

Special rules of classification

Use [E04B 2001/6818](#) for documents classified in [E04B 1/68](#) - [E04B 1/6816](#) for classifying additional information of joints comprising swellable parts.

E04B 1/6801

{Fillings therefor}

Definition statement

This place covers:

Joints using a putty-like filler, with or without backing strip.

E04B 1/6803

{Joint covers ([E04B 1/6815](#) takes precedence)}

References

Limiting references

This place does not cover:

Expansion elements specially adapted for wall or ceiling parts	E04B 1/6815
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E04B 1/6806

{Waterstops ([E04B 1/6807](#) takes precedence)}

Definition statement

This place covers:

Sealing strips embedded in two successively poured concrete structures.

References

Limiting references

This place does not cover:

Expansion elements for parts cast in situ	E04B 1/6807
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E04B 1/6807

{Expansion elements for parts cast in situ}

Definition statement

This place covers:

Waterstops with a central deformable section, e.g. hollow or folded.

E04B 1/6813

{Compressable seals of hollow form ([E04B 1/6816](#) takes precedence)}

References**Limiting references**

This place does not cover:

Porous tubular seals for injecting sealing material	E04B 1/6816
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E04B 1/6815

{Expansion elements specially adapted for wall or ceiling parts}

References**Limiting references**

This place does not cover:

Finishing strips for the junction of a wall and a ceiling	E04F 19/0436
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E04B 1/6816

{Porous tubular seals for injecting sealing material (filling of cracks in existing buildings [E04G 23/02](#))}

References**Limiting references**

This place does not cover:

Filling of cracks in existing buildings	E04G 23/02
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E04B 1/70

Drying or keeping dry, e.g. by air vents ({using damp-proof courses [E04B 1/644](#); using sealings, e.g. sealing masses or foils, [E04B 1/66](#)}; during erection [E04G 21/28](#))

References**Limiting references**

This place does not cover:

Drying or keeping dry using damp-proof courses	E04B 1/644
Drying or keeping dry using sealings, e.g. sealing masses or foils	E04B 1/66
Caps for the protection of the ends of wooden beams against humidity	E04B 5/12
Drying or keeping dry during erection	E04G 21/28
Repairing sealings	E04G 23/02

E04B 1/7007

{by using electricity, e.g. electro-osmosis (electrochemical desalination or re-alkalisation of reinforced concrete [C04B 41/00](#))}

Definition statement

This place covers:

Drying or keeping dry by the use of electricity, e.g. electro-osmosis, electrical heating of a wall or a room, electrical ventilation.

References**Limiting references**

This place does not cover:

Electrochemical desalination or re-alkalisation of reinforced concrete	C04B 41/00
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Informative references

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

Removing salts from walls	E04G 23/00
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E04B 1/7015

{by heating the ambient air}

Definition statement

This place covers:

Drying by heating the ambient air, e.g. using a burner.

References**Informative references**

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

Cellars	E04B 1/0007
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E04B 1/7023

{by collecting water in basements}

References**Limiting references**

This place does not cover:

Drainage around foundations	E02D 31/02
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Informative references

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

Cellars	E04B 1/0007
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E04B 1/7069

{by ventilating (means for ventilating in floors [E04B 5/48](#), in ceilings [E04B 9/02](#), in building blocks [E04C 1/392](#), in building panels [E04C 2/521](#), in roofs [E04D 13/16](#); ventilating wall coverings [E04F 13/007](#))}

References**Limiting references**

This place does not cover:

Means for ventilating in floors	E04B 5/48
Means for ventilating in ceilings	E04B 9/02
Means for ventilating in building blocks	E04C 1/392
Means for ventilating in building panels	E04C 2/521
Means for ventilating in roofs	E04D 13/16
Ventilating wall coverings	E04F 13/007

Informative references

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

Electrical ventilation for drying rooms	E04B 1/7007
Air-ducts or air channels	E04F 17/04

E04B 1/7076

{Air vents for walls}

Definition statement

This place covers:

Connections of the interior of the building or the interior of the wall with the exterior of the building; Air vents for crawl spaces.

References**Limiting references**

This place does not cover:

Pest control by keeping dry	E04B 1/70
Impregnation of wood or like materials	B27K

Informative references

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

Arrangements for catching or killing insects	A01M 1/24
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Special rules of classification

Documents with air vents for walls in combination with other aspects of ventilation are classified in [E04B 1/7069](#).

Pest control , [E04B 1/72](#).

E04B 1/74

Heat, sound or noise insulation, absorption, or reflection (forms of, or arrangements in, rooms for influencing or directing sound [E04B 1/99](#)); Other building methods affording favourable thermal or acoustical conditions, e.g. accumulating of heat within walls (fire protection [E04B 1/94](#); elements chiefly adapted for structural purposes [E04C 1/00](#) - [E04C 3/00](#); chiefly adapted for surface coverings [E04F 13/00](#); as underlayers for floor coverings [E04F 15/18](#); closures for wall or like openings [E06B](#))

References**Limiting references**

This place does not cover:

Fire protection	E04B 1/94
Forms of, or arrangements in, rooms for influencing or directing sound	E04B 1/99
Elements chiefly adapted for structural purposes	E04C 1/00 , E04C 2/00 , E04C 3/00
Elements; chiefly adapted for surface covering	E04F 13/00
Elements chiefly adapted as underlayers for floor coverings	E04F 15/18
Closures for wall or like openings	E06B

Informative references

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

Thermal insulation in general	F16L 59/00
Use of solar heat	F24S 20/00 , F24S 21/00
Heat storage using latent heat	F28D 20/02
Noise damping in general	G10K 11/00

Special rules of classification

Heat insulation of the whole building envelope and active heat insulation, e.g. walls with ventilation conduits for insulation purpose, are classified in [E04B 1/74](#).

E04B 1/76

specifically with respect to heat only (heat insulation in general [F16L 59/00](#))

References**Limiting references**

This place does not cover:

Insulating elements of car bodies	B60R 13/08
Heat insulation in general	F16L 59/00

Special rules of classification

Use [E04B 2001/741](#) - [E04B 2001/7695](#) for classifying additional information of the documents classified in [E04B 1/76](#) - [E04B 1/806](#) and [E04B 1/88](#), [E04B 1/90](#)

E04B 1/7604

{fillings for cavity walls}

References**Limiting references**

This place does not cover:

Implements or machines for applying insulating material	E04F 21/06
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E04B 1/7616

{with insulation-layer locating devices combined with wall ties}

Special rules of classification

Also classify in [E04B 1/4178](#) or [E04B 1/4185](#) when combined with masonry wall ties.

E04B 1/762

{Exterior insulation of exterior walls}

References**Informative references**

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

Bases for plaster	E04F 13/04
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E04B 1/7633**{Dowels with enlarged insulation retaining head}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Fastening of an exterior insulation on a roof using screws or nails	E04D 3/3601
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E04B 1/7637**{Anchoring of separate elements through the lining to the wall}****References****Limiting references***This place does not cover:*

Hinges or other suspension devices for doors, windows or wings	E05D
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E04B 1/7654**{comprising an insulating layer, disposed between two longitudinal supporting elements, e.g. to insulate ceilings}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Insulating material disposed between the purlins or rafters of a roof	E04D 13/1625
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E04B 1/7662**{comprising fiber blankets or batts}****References****Limiting references***This place does not cover:*

Manufacturing of inorganic fiber blankets or batts	D04H 1/4209 , D04H 3/002 , D04H 5/12
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Special rules of classification

Documents concerning fiber blankets or batts mentioning heat and sound insulation but without giving characteristics specific to sound insulation are classified in [E04B 1/7662](#) - [E04B 1/767](#).

E04B 1/78

Heat insulating elements {([E04B 1/7662](#) takes precedence)}

References**Limiting references**

This place does not cover:

Heat insulating fiber blankets or batts	E04B 1/7662
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E04B 1/80

slab-shaped

References**Informative references**

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

Nailable or screwable inserts for foam panels	E04B 2001/386
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E04B 1/803

{with vacuum spaces included in the slab}

References**Informative references**

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

Thermal insulation in general, using vacuum	F16L 59/06
Cold rooms, refrigerators using vacuum insulation	F25D 2201/14

E04B 1/82

specifically with respect to sound only ({of floors or ceilings [E04B 9/001](#);}
noise damping in ducts or channels [E04F 17/00](#); noise damping in general
[G10K 11/16](#))

Definition statement

This place covers:

Sound insulation for building constructions in general or for building structures which are not restricted either to walls or floors or ceilings or roofs.

References**Limiting references**

This place does not cover:

Sound insulation of suspended or false ceilings	E04B 9/001
Noise damping in ducts or channels	E04F 17/00

Informative references

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

Partition walls with special measures for sound insulation	E04B 2/7403 , E04B 2/7409
Insulating elements of car bodies	B60R 13/08
Sound insulation of flooring	E04F 15/20
Sound damping devices for pipes	F16L 55/033
Noise damping in general	G10K 11/16

Special rules of classification

Use [E04B 2001/741](#) - [E04B 2001/748](#) and [E04B 2001/8245](#) - [E04B 2001/8495](#) for classifying additional information of the documents classified in [E04B 1/82](#) - [E04B 1/90](#).

Reference [G10K 11/16](#) is non-limiting in subgroup [E04B 1/82](#). CPC will be corrected once this inconsistency is resolved in IPC.

E04B 1/8209

{sound absorbing devices ([E04B 1/8218](#), [E04B 1/8227](#) take precedence)}

Definition statement

This place covers:

Passive noise absorption body located in a room for absorbing the noise generated in the room.

References**Limiting references**

This place does not cover:

Soundproof enclosures	E04B 1/8218
Screens; Arrangements of sound-absorbing elements, e.g. baffles	E04B 1/8227
Ceiling with acoustic baffles	E04B 9/34

E04B 1/8218

{soundproof enclosures}

Definition statement

This place covers:

Enclosures keeping the noise out or in.

E04B 1/8227

{screens ([E04B 2/74](#) takes precedence; for road or railway traffic [E01F](#));
Arrangements of sound-absorbing elements, e.g. baffles}

References**Limiting references**

This place does not cover:

Partition walls	E04B 2/72 , E04B 2/74
Ceiling with acoustic baffles	E04B 9/34
Screens for road or railway traffic	E01F

E04B 1/84**Sound-absorbing elements****Definition statement**

This place covers:

Structural elements, specifically for sound absorption.

References**Informative references**

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

Structural building elements in general	E04C
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E04B 1/8404**{block-shaped}****References****Informative references**

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

Block-shaped building elements in general	E04C 1/00
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E04B 1/8409**{sheet-shaped}****References****Informative references**

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

Sheet-shaped building elements in general	E04C 2/00
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E04B 1/86**slab-shaped****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Panel or slab-shaped building elements in general	E04C 2/00
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E04B 1/88**Insulating elements for both heat and sound****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Structural building elements in general	E04C
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Special rules of classification

Documents concerning fiber blankets or batts mentioning heat and sound insulation but without giving characteristics specific to sound insulation are classified in [E04B 1/7662](#) - [E04B 1/767](#)

E04B 1/90**slab-shaped****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Panel or slab-shaped building elements in general	E04C 2/00
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E04B 1/92

Protection against other undesired influences or dangers (buildings providing protection against external dangers [E04H 9/00](#); shielding against dangerous radiation [G21F](#))

Definition statement*This place covers:*

Protection against other undesired influences or dangers for buildings in general, e.g. fire or vibrations and shocks originating from inside the building or due to wind or traffic, e.g. using mass damping systems.

References

Limiting references

This place does not cover:

Protection of foundations against entry of noxious gases, e.g. radon	E02D 31/008
Buildings providing protection against external dangers, e.g. earthquake- or hurricane-proof buildings	E04H 9/00
Shielding against dangerous radiation	G21F
Screening of rooms against electric or magnetic fields	H05K 9/0001

Special rules of classification

Use [E04B 2001/925](#) for classifying additional information of the documents classified in [E04B 1/92](#).

E04B 1/94

against fire ({fire protection of partitions [E04B 2/7403](#), [E04B 2/7409](#); supporting constructions for ceilings having the capability of expansion in case of fire [E04B 9/08](#)}; fire-fighting [A62C](#), {e.g. fire prevention or containment [A62C 2/00](#)}; impregnation of wood or similar materials [B27K](#); {fireproof paints [C09D 5/18](#); fireproofing materials [C09K 21/00](#); flame-resistant papers [D21H 5/0002](#); coverings or linings, e.g. for walls or ceilings, in general [E04F 13/00](#)}; fireproof doors [E06B 5/16](#); {firebreak devices for pipes or the like passing through walls [F16L 5/04](#); protection of pipes by means of non-inflammable material [F16L 57/04](#)})

References

Limiting references

This place does not cover:

Fire protection of partitions	E04B 2/7403 , E04B 2/7409
Supporting constructions for ceilings having the capability of expansion in case of fire	E04B 9/08
Fire-fighting	A62C
Fire prevention or containment	A62C 2/00
Permanently installed fire-fighting equipment	A62C 35/00
Impregnation of wood or similar materials	B27K
Fireproof paints	C09D 5/18
Fireproofing materials	C09K 21/00
Flame-resistant papers	D21H 5/0002
Coverings or linings, e.g. for walls or ceilings, in general	E04F 13/00
Fireproof doors	E06B 5/16
Firebreaks for passages of pipes, cables or protective tubing through walls or partitions	F16L 5/04
Firebreak devices for pipes or the like passing through walls	F16L 5/04

Protection of pipes by means of non-inflammable material	F16L 57/04
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Special rules of classification

Documents with details of the composition of fireproofing compounds should also be classified in the relevant classes for these compositions;

Use [E04B 2001/949](#) for classifying additional information of the documents classified in [E04B 1/94](#) - [E04B 1/945](#).

E04B 1/941

{Building elements specially adapted therefor}

Special rules of classification

Fusible suspension supports are classified in [E04B 1/941](#).

E04B 1/942

{slab-shaped}

Special rules of classification

Documents with details of the composition should be classified also in [E04B 1/94](#) and should receive classes for the compositions per se;

Details of fire-proof sealing of the connection of panels should additionally be classified in [E04B 1/948](#).

E04B 1/944

{covered with fire-proofing material}

References

Informative references

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

Beam coverings	E04B 9/005
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E04B 1/947

{by closing openings in walls or the like in the case of fire (fire-proof doors [E06B 5/16](#))}

References

Limiting references

This place does not cover:

Fire-proof doors	E06B 5/16
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E04B 1/948

{Fire-proof sealings or joints (for doors or windows [E06B 5/164](#))}

References**Limiting references**

This place does not cover:

Fire-proof sealings or joints for doors or windows	E06B 5/164
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E04B 1/98

against vibrations or shocks (on foundations [E02D 31/08](#)); against mechanical destruction, e.g. by air-raids (against incendiary damage only [E04B 1/94](#); finishing work therefor [E04F](#); buildings withstanding earthquake or the like, shelters, arrangements of splintercatching walls [E04H 9/00](#))

Definition statement

This place covers:

Protection of buildings against vibrations or shocks originating from inside the building, e.g. an explosion within the building, or are caused by the wind or nearby construction works or traffic.

References**Limiting references**

This place does not cover:

Protection against incendiary damage only	E04B 1/94
Protection against vibrations or shocks on foundations	E02D 31/08
Finishing work for protection against vibration, shocks, or mechanical damage	E04F
Buildings withstanding earth-quake or the like, shelters, arrangements of splintercatching walls	E04H 9/00
Buildings against air-raids or other war-like actions	E04H 9/04
Buildings adapted to withstand tornadoes	E04H 9/14

Informative references

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

Pressure relieve panels in case of over-pressure	E06B 5/12 , B65D 90/325 , H02B 13/025 , E05B 65/102
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E04B 1/99

Room acoustics, i.e. forms of, or arrangements in, rooms for influencing or directing sound ([E04B 1/82](#) takes precedence; acoustics in general [G10K 11/00](#); electric signal processing for producing a reverberation or echo sound [G10K 15/08](#))

Definition statement

This place covers:

Arrangements for adjusting the acoustics of e.g. a concert hall

References

Limiting references

This place does not cover:

Insulation specifically with respect to sound only	E04B 1/82
Acoustics in general	G10K 11/00
Electric signal processing for producing a reverberation or echo sound	G10K 15/08

E04B 2/00

Walls, e.g. partitions, for buildings; Wall construction with regard to insulation; Connections specially adapted to walls (connections for building structures in general [E04B 1/38](#); insulation for buildings in general [E04B 1/62](#); building elements of relatively thin form for parts of buildings [E04C 2/00](#))

Definition statement

This place covers:

Load-bearing and non-load-bearing walls for buildings, wall construction with regard to insulation, and connections specially adapted to walls for buildings.

References

Limiting references

This place does not cover:

Building panels	E04C 2/00
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Informative references

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

Connections for building structures in general	E04B 1/38
Insulation for buildings in general	E04B 1/62
Heat, sound or noise insulation, absorption, or reflection	E04B 1/74
Retaining walls	E02D 29/02

Special rules of classification

Load-bearing walls made from panels, e.g. pre-fabricated walls, are classified in [E04B 1/02](#) - [E04B 1/14](#).

Load-bearing or non-load-bearing walls built-up from layers of building elements, e.g. brick or block walls, are classified in [E04B 2/02](#) - [E04B 2/54](#).

Load-bearing walls having a framework or a pillarwork, and walls incorporating load-bearing elongated members, are classified in [E04B 2/56](#) - [E04B 2/709](#).

Non-load-bearing walls made of panels or posts and panels are classified in [E04B 2/72](#) - [E04B 2/828](#).

Load-bearing or non-load-bearing walls made by casting, pouring or tamping in situ are classified in [E04B 2/84](#) - [E04B 2/8664](#).

References [E04B 1/38](#) and [E04B 1/62](#) are non-limiting in main group [E04B 2/00](#). CPC will be corrected once this inconsistency is resolved in IPC.

E04B 2/02

built-up from layers of building elements

Definition statement

This place covers:

Walls for buildings built-up from layers of building elements, e.g. brick or block walls, as well as building elements of block or brick shape for the construction of parts of buildings. The walls can be bearing walls or non-bearing walls, e.g. partition walls, and the building elements accordingly.

References

Limiting references

This place does not cover:

Toys building blocks	A63H 33/04 - A63H 33/14
Positioning wedges	E04G 21/1841

Informative references

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

Masonry wall ties, i.e. anchors	E04B 1/4178
Details of connections of block or brick shaped building elements	E04B 2002/0202
Details of connections	E04B 2002/0202
Special features of block or brick shaped building elements	E04B 2002/0256
Retaining walls	E02D 29/02

Special rules of classification

Building elements of block or brick shape, for the construction of parts of buildings, are classified in [E04B 2/02](#) - [E04B 2/54](#), even if they do not explicitly form part of a wall.

Building elements of block or brick shape, for the construction of parts of buildings, and characterised by special adaptations, e.g. serving for locating conduits, for forming soffits, cornices or shelves, for fixing wall-plates or door-frames, for claustra, are classified in [E04C 1/39](#) - [E04C 1/397](#).

Building elements of block or brick shape, for the construction of parts of buildings, and being built-up from parts of different materials are classified in [E04C 1/40](#) - [E04C 1/41](#).

Building elements of glass or other transparent material, for the construction of parts of buildings, are classified in [E04C 1/42](#).

All aspects of the block or brick shaped building elements, e.g. special features, and details of connections among themselves, should be classified in [E04B 2/02](#) - [E04B 2002/0297](#).

Glossary of terms

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

Block shape	block shape is not restricted to parallelepiped shape
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E04B 2/04

Walls having neither cavities between, nor in, the solid elements

Definition statement

This place covers:

Walls having neither cavities between, nor in, the solid building elements, as well as solid brick or block shape building elements having no cavities in them.

E04B 2/10

by filling material with or without reinforcements in small channels in, or in grooves between, the elements

Definition statement

This place covers:

Walls built-up from layers of solid building elements of brick or block shape, and having no cavities in the elements, wherein the joints, e.g. small channels or grooves between the building elements and/or between the successive layers are filled with material, with or without additional reinforcements in the joints, small channels or grooves.

References

Informative references

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

Separate spacers between building elements	E04B 2002/0282
Reinforcing elements of low bending resistance	E04C 5/02
Light-weight girders	E04C 5/065
Reinforcing elements of material other than metal	E04C 5/07

E04B 2/14

Walls having cavities in, but not between, the elements, i.e. each cavity being enclosed by at least four sides forming part of one single element

Definition statement

This place covers:

Walls built-up from layers of building elements of brick or block shape having cavities in, but not between, the building elements, as well as brick or block shape building elements having cavities in them.

References

Informative references

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

Building elements of brick or block shape with holes filled with insulating material	E04B 2002/0289
Building elements of block shape, serving for ventilating, heating, cooling, and for locating conduits	E04C 1/392 , E04C 1/397

E04B 2/20

by filling material with or without reinforcements in small channels in, or in grooves between, the elements

Definition statement

This place covers:

Walls built-up from layers of building elements of brick or block shape, and having cavities in the elements, wherein the joints, e.g. small channels or grooves between the building elements and/or between the successive layers are filled with material, with or without additional reinforcements in the joints, small channels or grooves.

References

Informative references

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

Separate spacers between building elements	E04B 2002/0282
Reinforcing elements of low bending resistance	E04C 5/02
Light-weight girders	E04C 5/065
Reinforcing elements of material other than metal	E04C 5/07

E04B 2/24

the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams

References**Informative references**

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

Load-bearing walls of framework or pillarwork	E04B 2/56 - E04B 2/709
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E04B 2/26

the walls being characterised by fillings in all cavities in order to form a wall construction

References**Informative references**

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

Walls made by casting, pouring, or tamping in situ, e.g. in permanent forms, but not by filling cavities in brick or block elements exclusively	E04B 2/84
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E04B 2/28

Walls having cavities between, but not in, the elements; Walls of elements each consisting of two or more parts kept in distance by means of spacers, all parts being solid

Definition statement

This place covers:

Walls made from layers of building elements of brick or block shape, the walls having cavities between, but not in, the elements, e.g. walls made of solid building elements having special profiles on their small side faces in order to create a cavity when connected with the adjacent elements;

Walls made from layers of building elements of brick or block shape, each consisting of two or more parts kept in distance, in a direction perpendicular to the wall, by means of spacers, all parts of the elements being solid.

E04B 2/30

using elements having specially designed means for stabilising the position; Spacers for cavity walls {(masonry wall ties [E04B 1/4178](#))}

References**Informative references**

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

Masonry wall ties, i.e. anchors	E04B 1/4178
Details of connections	E04B 2002/0202

Glossary of terms

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

Spacers for cavity walls	spacers between solid parts of brick or block shaped elements for building cavity walls, e.g. spacers integrated in a block consisting of two parallel solid slab shaped parts kept at a distance by the spacer
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E04B 2/34

by filling material with or without reinforcements in small channels in, or in grooves between, the elements

Definition statement

This place covers:

Walls made from layers of building elements of brick or block shape, the walls having cavities between, but not in, the elements, wherein the joints, e.g. small channels or grooves between the building elements and/or between the successive layers are filled with material, with or without additional reinforcements in the joints, small channels or grooves.

References

Informative references

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

Separate spacers between building elements	E04B 2002/0282
Reinforcing elements of low bending resistance	E04C 5/02
Light-weight girders	E04C 5/065
Reinforcing elements of material other than metal	E04C 5/07

E04B 2/38

the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams

References

Informative references

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

Load-bearing walls of framework or pillarwork	E04B 2/56 - E04B 2/709
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E04B 2/40

the walls being characterised by fillings in all cavities in order to form a wall construction

References**Informative references**

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

Walls made by casting, pouring, or tamping in situ, e.g. in permanent forms, but not by filling cavities in brick or block elements exclusively	E04B 2/84
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E04B 2/42

Walls having cavities between, as well as in, the elements; Walls of elements each consisting of two or more parts, kept in distance by means of spacers, at least one of the parts having cavities

Definition statement

This place covers:

Walls made from layers of building elements of brick or block shape, the walls having cavities between, as well as in the elements, e.g. walls made of building elements having cavities and having special profiles on their small side faces in order to create a cavity when connected with the adjacent elements;

Walls made from layers of building elements of brick or block shape, each consisting of two or more parts kept in distance, in a direction perpendicular to the wall, by means of spacers, at least one of the parts of the elements having cavities.

E04B 2/44

using elements having specially-designed means for stabilising the position; Spacers for cavity walls {(masonry wall ties [E04B 1/4178](#))}

References**Informative references**

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

Masonry wall ties, i.e. anchors	E04B 1/4178
Details of connections	E04B 2002/0202

Glossary of terms

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

Spacers for cavity walls	spacers between parts of brick or block shaped elements for building cavity walls, at least one of the parts having cavities, e.g. spacers integrated in a block consisting of two parallel, non-massive, slab shaped parts kept at a distance by the spacer
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E04B 2/48

by filling material with or without reinforcements in small channels in, or in grooves between, the elements

Definition statement

This place covers:

Walls made from layers of building elements of brick or block shape, the walls having cavities between, as well as in the elements, wherein the joints, e.g. small channels or grooves between the building elements and/or between the successive layers are filled with material, with or without additional reinforcements in the joints, small channels or grooves.

References**Informative references**

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

Separate spacers between building elements	E04B 2002/0282
Reinforcing elements of low bending resistance	E04C 5/02
Light-weight girders	E04C 5/065
Reinforcing elements of material other than metal	E04C 5/07

E04B 2/52

the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams

References**Informative references**

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

Load-bearing walls of framework or pillarwork	E04B 2/56 - E04B 2/709
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E04B 2/54

the walls being characterised by fillings in all cavities in order to form a wall construction

References**Informative references**

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

Walls made by casting, pouring, or tamping in situ, e.g. in permanent forms, but not by filling cavities in brick or block elements exclusively	E04B 2/84
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E04B 2/56

{Load-bearing} walls of framework or pillarwork; Walls incorporating load-bearing elongated members ([E04B 2/74](#), [E04B 2/88](#) take precedence; pillars [E04C 3/30](#))

References**Limiting references**

This place does not cover:

Removable non-load-bearing partitions; Partitions with a free upper edge	E04B 2/74
Curtain walls	E04B 2/88
Pillars	E04C 3/30

E04B 2/562

{with fillings between the load-bearing elongated members}

Definition statement

This place covers:

Nogging of half-timbered walls.

E04B 2/62

the members being formed of two or more elements in side-by-side relationship

References**Informative references**

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

Framework with metallic elongated load-supporting parts formed of a number of parallel profiles	E04B 2001/2472
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E04B 2/68

made by filling-up wall cavities ([E04B 2/24](#), [E04B 2/38](#), [E04B 2/52](#) take precedence)

References**Limiting references**

This place does not cover:

Walls having cavities in, but not between, the elements, the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams	E04B 2/24
Walls having cavities between, but not in, the elements, the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams	E04B 2/38

Walls having cavities between, as well as in, the elements, the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams	E04B 2/52
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E04B 2/701

{with integrated supporting and obturation function}

Definition statement

This place covers:

Walls made from horizontally laid logs or beams, e.g. log cabins.

E04B 2/702

{with longitudinal horizontal elements ([E04B 2/704](#), [E04B 2/705](#) take precedence)}

References

Limiting references

This place does not cover:

Walls incorporating load-bearing elongated members of wood, with longitudinal horizontal elements shorter than the length of a wall	E04B 2/704
Walls incorporating load-bearing elongated members of wood, with longitudinal horizontal elements placed between columns	E04B 2/705

E04B 2/706

{with supporting function}

Definition statement

This place covers:

Walls comprising structural wooden studs or posts with non structural closure elements en-between, e.g. structural stud walls and shear bracing therefor.

References

Limiting references

This place does not cover:

Half-timbering	E04B 2/562
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E04B 2/72

{Non-load-bearing} walls of elements of relatively thin form {with respect to the thickness of the wall} ([E04B 2/56](#), [E04B 2/74](#), [E04B 2/88](#) take precedence; with joint fillings acting as framework or pillars [E04B 2/68](#); elements [E04C 2/00](#))

Definition statement

This place covers:

Non-load-bearing thin walls without studs or posts, with profiled or folded panels or trays.

References

Limiting references

This place does not cover:

Load-bearing] walls of framework or pillarwork; Walls incorporating load-bearing elongated members	E04B 2/56
Non-load-bearing walls of elements of relatively thin form with joint fillings acting as framework or pillars	E04B 2/68
Removable non-load-bearing partitions; Partitions with a free upper edge	E04B 2/74
Non-structural stud walls	E04B 2/7453
Curtain walls	E04B 2/88
Building elements of relatively thin form for the construction of parts of buildings, e.g. sheet materials, slabs, or panels	E04C 2/00

Special rules of classification

Use [E04B 2002/725](#) - [E04B 2002/728](#) as additional information for the documents of [E04B 2/72](#).

E04B 2/723

{constituted of gypsum elements}

Definition statement

This place covers:

Non-load-bearing thin walls with folded plasterboard or gypsum or plaster projected onto a lattice.

Special rules of classification

Use [E04B 2/845](#) as additional information for the documents of [E04B 2/723](#).

E04B 2/74

Removable non-load-bearing partitions; Partitions with a free upper edge (framed panels [E04C 2/38](#))

Definition statement

This place covers:

E.g., modular coordination.

References

Informative references

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

Screens, e.g. for an auscultation room	A47G 5/00
Framed panels	E04C 2/38
Electric wiring	H01R

Special rules of classification

Documents with tables, shelving and similar items associated with a partition wall should be additionally classified in furniture groups, e.g. in [A47B](#) for tables or desks.

Reference [E04C 2/38](#) is non-limiting in subgroup [E04B 2/74](#). CPC will be corrected once this inconsistency is resolved in IPC.

E04B 2/7407

{assembled using frames with infill panels or coverings only; made-up of panels and a support structure incorporating posts ([E04B 2/78](#) and [E04B 2/80](#) take precedence)}

References

Limiting references

This place does not cover:

Removable non-load-bearing partitions or partitions with a free upper edge with framework or posts of metal characterised by special cross-section of the frame-members	E04B 2/78
Removable non-load-bearing partitions or partitions with a free upper edge with framework or posts of wood	E04B 2/80

Special rules of classification

Use [E04B 2/7409](#) - [E04B 2002/7498](#) as additional information for the documents of [E04B 2/7407](#) - [E04B 2/7459](#).

E04B 2/7425

{Details of connection of panels ([E04B 2/7427](#) takes precedence)}

References

Limiting references

This place does not cover:

Partitions with a free upper edge with separate framed panels without intermediary support posts and with adjustable angular connection of panels	E04B 2/7427
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E04B 2/7435**{Glazing details}****Special rules of classification**

Use [E04B 2/7437](#) - [E04B 2/7444](#) as additional information for the documents of [E04B 2/7435](#).

E04B 2/7437**{with panels hooked onto posts ([E04B 2/7438](#) takes precedence)}****Definition statement**

This place covers:

Non-load-bearing partition with free upper edge and panels hooked onto posts, e.g. with additional securing elements to prevent its unhooking.

References**Limiting references**

This place does not cover:

Partitions with a free upper edge with panels with support posts and with adjustable angular connection of panels to posts	E04B 2/7438
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E04B 2/7442**{hinged connections ([E04B 2/7444](#) takes precedence)}****References****Limiting references**

This place does not cover:

Partitions with a free upper edge with panels with support posts and with panels hooked onto the rim or in a groove of circular posts	E04B 2/7444
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E04B 2/745**{Glazing details}****Special rules of classification**

Use [E04B 2/7451](#) as additional information for the documents of [E04B 2/745](#).

E04B 2/7455**{Glazing details}****Special rules of classification**

Use [E04B 2/7457](#) - [E04B 2/7459](#) as additional information for the documents of [E04B 2/7455](#).

E04B 2/7457

{with wallboards attached to the outer faces of the posts, parallel to the partition ([E04B 2/7459](#) takes precedence)}

References**Limiting references**

This place does not cover:

Removable non-load-bearing partitions with panels and support posts, extending from floor to ceiling, the posts being telescoping to compensate for floor or ceiling irregularities	E04B 2/7459
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E04B 2/76

with framework or posts of metal {(details of connections, thresholds or skirtings [E04B 2/82](#))}

Definition statement

This place covers:

Connections of horizontal and vertical metallic frame members.

References**Limiting references**

This place does not cover:

Details of connections, thresholds or skirtings	E04B 2/82
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Informative references

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

Mitre joints for windows, doors	E06B 3/96
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E04B 2/82

characterised by the manner in which edges are connected to the building;
Means therefor; Special details of easily-removable partitions {as far as related to the connection with other parts of the building}

References**Limiting references**

This place does not cover:

Means for connecting partition walls or panels to the ceilings	E04B 9/008
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E04B 2/825

{the connection between the floor and the ceiling being achieved without any restraining forces acting in the plane of the partition}

References**Limiting references**

This place does not cover:

Removable non-load-bearing partitions with panels and support posts, extending from floor to ceiling, the posts being telescoping to compensate for floor or ceiling irregularities	E04B 2/7459
Connections between wall studs and upper or lower locating rails allowing vertical movement of upper rail with respect to the stud, e.g. by using slots in the rail or stud	E04B 2/768

E04B 2/827

{Partitions constituted of sliding panels}

Definition statement

This place covers:

Non-load-bearing partitions constituted of sliding panels, where the sliding occurs in a direction parallel or perpendicular to the plane of the partition

References**Informative references**

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

Suspension arrangements for sliding wings of doors	E05D 15/06
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E04B 2/84

Walls made by casting, pouring, or tamping in situ ([E04B 2/02](#), [E04B 2/56](#) take precedence; forms therefor [E04G 11/06](#); working of concrete or similar masses able to be cast or poured in situ [E04G 21/02](#))

References**Limiting references**

This place does not cover:

Walls built-up from layers of building elements	E04B 2/02
Load-bearing walls of framework or pillarwork ; Walls incorporating load-bearing elongated members	E04B 2/56
Reusable forms for walls made by casting, pouring, or tamping in situ	E04G 11/06
Working of concrete or similar masses able to be cast or poured in situ	E04G 21/02

Special rules of classification

Documents where the filling does not contain a hardenable binder, e.g. rammed earth or loose rocks, are classified in [E04B 2/84](#).

E04B 2/86

made in permanent forms

Special rules of classification

Use [E04B 2002/867](#) - [E04B 2002/8694](#) as additional information for the documents of [E04B 2/86](#) - [E04B 2/8652](#).

Glossary of terms

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

A "tie" holds the two opposite leaves of the form together.

A "spacer" keeps the two opposite leaves at a predetermined distance from each other.

A single element can but must not have both functions: i.e. a tie can be a spacer or not, a spacer can be a tie or not.

E04B 2/8635

{with ties attached to the inner faces of the forms ([E04B 2/8611](#) and [E04B 2/8623](#) take precedence)}

References

Limiting references

This place does not cover:

Walls made by casting, pouring, or tamping in situ in permanent forms with spacers being embedded in at least one form leaf	E04B 2/8611
Walls made by casting, pouring, or tamping in situ in permanent forms with spacers and at least one form leaf being monolithic	E04B 2/8623

E04B 2/8641

{using dovetail-type connections}

Definition statement

This place covers:

Connections with dovetail or "T"-shaped grooves in the inner face of the form or the spacer

E04B 2/8647

{with ties going through the forms}

Definition statement

This place covers:

Ties going through the form, e.g. nails or screws going through the forms into the spacers.

E04B 2/88**Curtain walls {(fixing of glass panes [E06B 3/54](#))}****References****Limiting references***This place does not cover:*

Fixing of glass panes	E06B 3/54
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Informative references*Attention is drawn to the following places, which may be of interest for search:*

Measures for draining-off condensed water or water leaking in windows	E06B 7/14
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Special rules of classification

Curtain walls in combination with ventilation , heating, drainage, shading, adjustable supports are classified in [E04B 2/88](#);

Drainage details should additionally be classified in [E06B 7/14](#).

E04B 2/885**{comprising a supporting structure for flush mounted glazing panels}****References****Limiting references***This place does not cover:*

Connectors for fixing the flush mounted glazing to the supporting structure	E06B 3/54
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E04B 2/90**comprising panels directly attached to the structure {([E04B 2/885](#) takes precedence)}****Definition statement***This place covers:*

Panels directly attached to the structure, the panel comprising a frame or not

References**Limiting references***This place does not cover:*

Curtain walls comprising a supporting structure for flush mounted glazing panels	E04B 2/885
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E04B 2/94**Concrete panels ([E04B 2/92](#) takes precedence)****References****Limiting references***This place does not cover:*

Curtain walls with sandwich-type panels	E04B 2/92
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E04B 2/96**comprising panels attached to the structure through mullions or transoms
{([E04B 2/885](#) takes precedence)}****Definition statement***This place covers:*

Panels attached with panel clamping bars to the mullions or the transoms.

References**Limiting references***This place does not cover:*

Curtain walls comprising a supporting structure for flush mounted glazing panels	E04B 2/885
Glass roofs	E04D 3/06
Flush mounted glazing, the panels being attached without clamping bars to mullions or transoms	E06B 3/54

E04B 2/965**{Connections of mullions and transoms}****Special rules of classification**

Documents with details of connections of mullions to mullions, with details of connections of mullions or transoms to the supporting structure, or with details of the infill panels are classified in [E04B 2/96](#), even if they show details of the connections of mullions and transoms.

Documents with details of angles or corners of the curtain walls are classified in [E04B 2/962](#), even if they show details of the connections of mullions and transoms.

E04B 2/967**{Details of the cross-section of the mullions or transoms ([E04B 2/965](#) takes precedence)}****Special rules of classification**

Are classified in [E04B 2/967](#) documents which show only details of the cross-section of the mullions or transoms.

Documents with details of connections of mullions to mullions, of connections mullions or transoms, or with details of the infill panels, or with details of angles or corners of the curtain walls are classified in [E04B 2/96](#), [E04B 2/962](#) or [E04B 2/965](#), even if they show details of the cross-section of the mullions or transoms.

E04B 5/00

Floors; Floor construction with regard to insulation; Connections specially adapted therefor (elements for floors, e.g. bricks, stones, filling bodies, girders, [E04C](#); flooring as finishing work, insulation of flooring, sectional false floors, e.g. for computers [E04F 15/00](#))

Definition statement

This place covers:

Structural floors for buildings; Building floors construction in general and with regard to insulation; Connections specially adapted to floors.

References

Limiting references

This place does not cover:

Producing slab shaped elements of concrete in moulds	B28B
Decks for ships	B63B 3/48
Flat foundations, floors resting on the ground	E02D 27/00
Girders for floors	E04C 3/00
Flooring as finishing work, insulation of flooring, sectional false floors, e.g. for computers	E04F 15/00
Decks, e.g. garden decks	E04F 15/00
Disposable shutterings, forms for floors	E04G

Informative references

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

Connections for building structures in general	E04B 1/38
Building insulation in general; Heat and sound insulation for buildings	E04B 1/62 , E04B 1/74
Buildings for parking cars	E04H 6/00

E04B 5/02

Load-carrying floor structures formed substantially of prefabricated units ([E04B 5/43](#) - [E04B 5/48](#) take precedence)

References

Limiting references

This place does not cover:

Decks, e.g. garden decks	E04F 15/00
Sectional false floors	E04F 15/024

Informative references

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

Floor structures of extraordinary design	E04B 5/43
Special adaptation of floors for transmission of light	E04B 5/46
Special adaptation of floors for incorporating ducts	E04B 5/48

E04B 5/026

{with beams or slabs of plastic}

References**Informative references**

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

Beams of plastics	E04C 3/28
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E04B 5/04

with beams {or slabs} of concrete or other stone-like material, e.g. asbestos cement ([E04B 5/08](#), [E04B 5/14](#) take precedence)

References**Informative references**

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

Load carrying floor structures formed substantially of prefabricated units, and assembled of block shaped elements	E04B 5/08
Load carrying floor structures formed substantially of prefabricated units, with beams or girders laid in two directions	E04B 5/14

Special rules of classification

Load-carrying floor structures consisting of prefabricated slabs of concrete or other stone like material are classified in [E04B 5/04](#), except floor structures consisting of hollow core slabs which are classified in [E04B 5/043](#).

E04B 5/043

{having elongated hollow cores}

Definition statement

This place covers:

Load-carrying floor structures consisting of elongated hollow cores slabs, e.g. placed against one another.

References

Informative references

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

Load-carrying floor structures partly cast in situ with prefabricated or partly prefabricated beams and one or more hollow cores between the beams	E04B 5/265
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Glossary of terms

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

Hollow core slab	Hollow core slab is a precast slab of prestressed concrete, having tubular voids extending the full length of the slab
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E04B 5/046

{with beams placed with distance from another}

Definition statement

This place covers:

Load-carrying floor structures formed of prefabricated beams placed with distance from one another, the space between the beams being filled or covered by prefabricated elements and eventually completed by non-structural layers of concrete or mortar..

References

Limiting references

This place does not cover:

Load carrying floor structures formed substantially of prefabricated units, and assembled of block shaped elements	E04B 5/08
Load-carrying floor structures partly cast in situ with prefabricated stiffening ribs	E04B 5/23 - E04B 5/29

E04B 5/06

{with beams} placed against one another {optionally with pointing-mortar}

References

Limiting references

This place does not cover:

Load-carrying floor structures consisting of elongated slabs placed against one another	E04B 5/04
Load-carrying floor structures consisting of elongated hollow cores slabs placed against one another	E04B 5/043

E04B 5/08

assembled of block-shaped elements, e.g. hollow stones ([E04B 5/14](#) takes precedence; floors composed of reinforced brickwork [E04B 5/44](#))

Definition statement

This place covers:

Load carrying floor structures assembled of prefabricated block-shaped elements, e.g. joined together by mortar, tensioning or connecting elements.

References**Informative references**

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

Load carrying floor structures formed substantially of prefabricated units, with beams or girders laid in two directions	E04B 5/14
Floors composed of reinforced brickwork	E04B 5/44

E04B 5/10

with metal beams or girders, e.g. with steel lattice girders ([E04B 5/14](#) takes precedence)

References**Informative references**

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

Load carrying floor structures formed substantially of prefabricated units, with beams or girders laid in two directions	E04B 5/14
Metal beams or girders	E04C 3/04
Light-weight girders as reinforcing elements	E04C 5/065

E04B 5/12

with wooden beams ([E04B 5/14](#) takes precedence)

Definition statement

This place covers:

Also means for supporting beams.

References**Limiting references**

This place does not cover:

Load-carrying floor structures formed substantially of prefabricated units with beams or girders laid in two directions	E04B 5/14
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Informative references

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

Wooden joists hangers	E04B 1/2612
Wooden beams	E04C 3/12
Shores or struts	E04G 25/00

E04B 5/16

Load-carrying floor structures wholly or partly cast or similarly formed in situ ([E04B 5/43](#) - [E04B 5/48](#) take precedence; floors merely characterised by the prefabricated elements [E04C](#))

References**Informative references**

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

Floor structures of extraordinary design	E04B 5/43
Floors composed of stones, mortar and reinforcing elements	E04B 5/44
Special adaptation of floors for transmission of light	E04B 5/46
Special adaptation of floors for incorporating ducts	E04B 5/48
Forms or shutterings for making floors	E04G 11/00

E04B 5/17**Floor structures partly formed in situ****Definition statement**

This place covers:

Floor structures partly formed in situ, i.e. in which at least some parts of the structure are prefabricated, e.g. precast girders or prefabricated filling members between the beams.

References**Limiting references**

This place does not cover:

Floor structures cast in situ with hollow cylindrical or spherical filling elements	E04B 5/32
Floor structures cast in situ with form units as part of the floor; with slab shaped form units acting as reinforcement	E04B 5/36 , E04B 5/38

E04B 5/18

with stiffening ribs or other beam-like formations wholly cast between filling members

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated filling members and with stiffening ribs wholly cast between or in the prefabricated filling members; Prefabricated filling elements suitable for casting stiffening ribs between or in them.

E04B 5/19

the filling members acting as self-supporting permanent forms ([E04B 5/21](#) takes precedence)

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated self-supporting filling members and with stiffening ribs wholly cast between or in the prefabricated self-supporting filling members, e.g. elongated self-supporting filling members resting on the walls.

References

Informative references

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

Load-carrying floor structures consisting of slabs	E04B 5/04
Load-carrying floor structures consisting of hollow cores slabs	E04B 5/043
Floor structures partly formed in situ, with prefabricated filling members and with stiffening ribs wholly cast between or in the prefabricated filling members, and extending in two different directions	E04B 5/21
Load-carrying floor structures partly cast in situ with prefabricated or partly prefabricated beams and one or more hollow cores between the beams	E04B 5/265

E04B 5/21

Cross-ribbed floors

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated filling members and with stiffening ribs wholly cast between or in the prefabricated filling members, and extending in two different and intersecting directions. Prefabricated filling elements suitable for casting cross-ribbed floors.

E04B 5/23

with stiffening ribs or other beam-like formations wholly or partly prefabricated (with all load-carrying parts substantially consisting of prefabricated units [E04B 5/02](#) {; beams built-up by elements joined in line [E04C 3/22](#)})

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated or partly prefabricated beam-like formations, e.g. prefabricated beams of concrete, metal or wood.

References**Limiting references**

This place does not cover:

With all load-carrying parts substantially consisting of prefabricated units	E04B 5/02
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Informative references

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

Provisions for connecting wooden stiffening ribs to the concrete slab	E04B 2005/232
Beams built-up by elements joined in line	E04C 3/22

E04B 5/26

with filling members between the beams ([E04B 5/28](#) takes precedence)

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated or partly prefabricated beam-like formations and with prefabricated filling members between the beams;

Prefabricated elements for use as filling elements between prefabricated or partly prefabricated beams.

E04B 5/261**{Monolithic filling members}****Definition statement**

This place covers:

Floor structures partly formed in situ, with prefabricated or partly prefabricated beam-like formations and with prefabricated monolithic filling members between the beams;

Prefabricated monolithic elements for use as filling elements between prefabricated or partly prefabricated beams.

Glossary of terms

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

Monolithic	In one piece
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E04B 5/263

{with a flat lower surface ([E04B 5/265](#) takes precedence)}

References

Limiting references

This place does not cover:

Load-carrying floor structures partly cast in situ with prefabricated or partly prefabricated beams and one or more hollow cores between the beams	E04B 5/265
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E04B 5/265

{with one or more hollow cores}

Definition statement

This place covers:

Load-carrying floor structures partly cast in situ with prefabricated or partly prefabricated beams and one or more hollow cores between the beams

References

Informative references

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

Load-carrying floor structures consisting of hollow cores slabs only	E04B 5/043
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E04B 5/28

Cross-ribbed floors

Definition statement

This place covers:

Floor structures partly formed in situ, with prefabricated or partly prefabricated beam-like formations and with prefabricated filling members between the beams;

Prefabricated elements for use as filling elements between prefabricated or partly prefabricated beams in a cross-ribbed floor.

E04B 5/29

the prefabricated parts of the beams consisting wholly of metal ([E04B 5/28](#) takes precedence)

References**Limiting references**

This place does not cover:

Beams, as independent entities, consisting of steel and concrete	E04C 3/293
Beams, as independent entities, consisting of concrete combined with a girder-like steel structure extending laterally outside the element	E04C 3/294

Informative references

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

Metal beams or girders	E04C 3/04
Light-weight metal girders used as reinforcement, e.g. with a precast concrete part	E04C 3/065

E04B 5/32

Floor structures wholly cast in situ with or without form units or reinforcements

References**Informative references**

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

Means preventing cold bridging at the junction of external walls with a floor	E04B 2001/7679
Floor structures having permanent form for the floor edges	E04B 2005/322
Floor structures having peripheral anchors or supports	E04B 2005/324
Forms or shutterings for making floors	E04G 11/00

Special rules of classification

Floor structures cast in situ with hollow cylindrical or spherical filling elements are classified in [E04B 5/32](#).

Floor structures cast in situ with a metal form-slab are classified in [E04B 5/40](#).

E04B 5/36**with form units as part of the floor****Definition statement***This place covers:*

Floor structures wholly cast in situ with form units as part of the floor, the form units being either made in one piece or made of different elements, e.g. non-self-supporting form units.

References**Limiting references***This place does not cover:*

Sectional false floors	E04F 15/024
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Special rules of classification

Non-self-supporting floor form units, either made of one element or of a series of elements, are classified in [E04B 5/36](#), except in case of metal form-slabs.

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

Floor form unit	A form, either made of one element or of a series of elements, that allows the floor to be cast over it, in situ, without the need of additional forms.
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E04B 5/38

with slab-shaped form units acting simultaneously as reinforcement; Form slabs with reinforcements extending laterally outside the element {(beams placed against one another and acting as permanent forms [E04B 5/23](#))}

Definition statement*This place covers:*

Floor structures wholly cast in situ with slab-shaped substantially self-supporting form units acting simultaneously as reinforcement;

Form slabs with reinforcements of metal or other material extending laterally outside the form slab, and that are suitable to be embedded in the concrete of the floor slab to be cast in-situ, e.g. "Predalles" concrete slabs or semi-finished reinforced concrete slabs.

E04B 5/40**with metal form-slabs****Definition statement***This place covers:*

Floor structures wholly cast in situ with metal form-slabs, e.g. with corrugated or non-corrugated metal form-slabs.

E04B 5/43

Floor structures of extraordinary design; Features relating to the elastic stability; Floor structures specially designed for resting on columns only, e.g. mushroom floors ({anchoring devices for balconies with means for preventing cold bridging [E04B 1/0038](#)}; extraordinary constructions in general [E04B 1/34](#))

References

Informative references

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

Anchoring devices for balconies with means for preventing cold bridging	E04B 1/0038
Extraordinary constructions in general	E04B 1/34
Shear reinforcements, e.g. shear heads for floor slabs	E04C 5/0645
Buildings adapted to withstand abnormal external influences, e.g. earthquakes	E04H 9/00

E04B 5/44

Floors composed of stones, mortar, and reinforcing elements (with inserts of glass [E04B 5/46](#))

Definition statement

This place covers:

Floors composed of stones, e.g. hollow bricks, mortar and reinforcing elements.

References

Limiting references

This place does not cover:

Special adaptation of floors for transmission of light, e.g. by inserts of glass	E04B 5/46
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Informative references

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

Load carrying floor structures assembled of prefabricated block-shaped elements	E04B 5/08
Beams built-up by elements joined in line	E04C 3/22

Special rules of classification

Floor structures assembled of relatively large prefabricated block-shaped elements and relatively little mortar or concrete are classified in [E04B 5/08](#).

E04B 5/46

Special adaptation of floors for transmission of light, e.g. by inserts of glass (of ceilings [E04B 9/32](#), block-shaped elements [E04C 1/42](#); slab- or sheet-shaped elements [E04C 2/54](#); for roof covering [E04D 3/06](#))

References

Informative references

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

Translucent ceilings	E04B 9/32
Block-shaped building elements of glass or transparent material	E04C 1/42
Slab-like translucent building elements	E04C 2/54
Roof coverings of glass or other translucent materials	E04D 3/06 , E04D 3/28

E04B 5/48

Special adaptations of floors for incorporating ducts, e.g. for heating or ventilating (in block-shaped elements [E04C 1/39](#); in slab- or sheet-shaped elements [E04C 2/52](#))

Definition statement

This place covers:

Special adaptations of floors for incorporating ducts, e.g. for heating or ventilating, in the structural body of the floor.

References

Limiting references

This place does not cover:

Sectional false floors	E04F 15/024
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Informative references

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

Building elements of block shape serving for locating conduits	E04C 1/39
Building elements of slab shape serving for locating conduits	E04C 2/52
Hot-water central heating systems	F24D 3/00
Ventilation with air supply through perforated floors	F24F 7/10
Installation of electric cables in floors	H02G 3/283

E04B 7/00

Roofs; Roof construction with regard to insulation (structures for roofs as well as for floors [E04B 5/00](#); ceilings [E04B 9/00](#); greenhouses [A01G 9/14](#); large containers having floating covers [B65D 88/34](#); roof trusses, truss-like structures, joists [E04C 3/02](#); roof coverings [E04D](#))

Definition statement

This place covers:

Roofs, i.e. roof structures; Roof construction with regard to insulation, e.g. self-supporting insulated roof-slabs.

References

Limiting references

This place does not cover:

Structures for roofs, in particular for flat roofs, as well as for floors	E04B 5/00
Ceilings, i.e. suspended ceilings	E04B 9/00
Greenhouses	A01G 9/14
Large containers having floating covers	B65D 88/34
Roof trusses per se, truss-like structures	E04C 3/02
Roof coverings	E04D

Informative references

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

Three-dimensional frameworks	E04B 1/19
Arched structures; Vaulted structures; Folded structures	E04B 1/32
Extraordinary structures; Structures covering a large free area; Structures characterised by movable, separable or collapsible parts; Structures composed of box-like or cell-like units	E04B 1/34 , E04B 1/342 , E04B 1/343 , E04B 1/348
Arched girders or portal frames	E04C 3/38
Sunshades; Awnings	E04F 10/00
Tents or canopies, in general	E04F 15/00
Buildings or structures for particular purposes, e.g. bus shelters, swimming pools; coverings thereof	E04H

E04B 7/02

with plane sloping surfaces, e.g. saddle roofs ([E04B 7/12](#) takes precedence)

References

Limiting references

This place does not cover:

Roofs formed in bays, e.g. saw-tooth roofs	E04B 7/12
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Informative references

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

Sunshades, e.g. made of flexible canopy materials	E04F 10/00
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E04B 7/022

{consisting of a plurality of parallel similar trusses or portal frames}

References**Informative references**

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

Roof trusses per se, truss-like structures	E04C 3/02
Arched girders or portal frames	E04C 3/38

E04B 7/024

{the trusses or frames supporting load-bearing purlins, e.g. braced purlins (battens, supports for battens [E04D 12/00](#))}

References**Informative references**

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

Roof battens; supports for roof battens	E04D 12/004
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Synonyms and Keywords

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

- " Purlins " and "Battens"

E04B 7/026

{consisting of prefabricated modules, e.g. box-like or cell-like units ([E04B 7/24](#) takes precedence)}

Definition statement

This place covers:

Roof consisting of prefabricated modules, e.g. box-like or cell-like units, the prefabricated modules arriving in situ ready to be put in place as they are.

References**Limiting references**

This place does not cover:

Roofs consisting of self-supporting slabs, the slabs being collapsible or retractable, e.g. for transport	E04B 7/24
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Informative references

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

Structures composed of box-like or cell-like units	E04B 1/348
--	----------------------------

E04B 7/028

{consisting of structures of pyramidal or conical shape}

References**Informative references**

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

Small buildings erected in the open air, e.g. waiting shelters, kiosks, beach cabins, public WC's	E04H 1/1205
---	-----------------------------

E04B 7/04

supported by horizontal beams or the equivalent resting on the walls
([E04B 7/06](#) takes precedence)

Definition statement

This place covers:

Details of connections between the roof structure and the supporting walls, for roofs in which the roof structure is supported by the walls, e.g. roof trusses supported by horizontal beams resting on the walls.

References**Informative references**

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

Constructions of roof intersections or hipped ends	E04B 7/06
--	---------------------------

E04B 7/045

{with connectors made of sheet metal for connecting the roof structure to the supporting wall (connectors made of sheet metal for wooden elongated load-supporting elements in general [E04B 1/2608](#))}

References**Informative references**

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

Connectors made of sheet metal for wooden elongated load supporting elements in general	E04B 1/2608
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E04B 7/06

Constructions of roof intersections or hipped ends

References

Informative references

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

Greenhouses	A01G 9/14
Mutual connections of metal glazing bars	E04D 2003/0868

Glossary of terms

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

Hipped end	The ridge end or node defined by the junction of three or more triangular sloping faces in a hip roof
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E04B 7/063

{Hipped ends}

References

Informative references

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

Mutual connections of metal glazing bars on the ridge of the roof	E04D 2003/0875
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E04B 7/08

Vaulted roofs ([E04B 7/14](#) takes precedence; vaulted structures in general [E04B 1/32](#); inflatable tents or canopies, in general [E04H 15/20](#); inflatable forms for shaping in situ [E04G 11/04](#))

Definition statement

This place covers:

Vaulted roofs, i.e. roofs having a general curved shape, in one or more directions, e.g. an arched shape, an hyperbolic-parabolic shape, a dome shape, a curved and folded shape.

References

Limiting references

This place does not cover:

Suspended roofs	E04B 7/14
Inflatable tents or canopies, in general	E04H 15/20

Informative references

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

Vaulted structures in general	E04B 1/32
Extraordinary structures; Structures covering a large free area	E04B 1/34 , E04B 1/342
Saw-tooth roofs	E04B 7/12
Inflatable forms for shaping in situ	E04G 11/04

Special rules of classification

Barrel vaulted roofs are classified in [E04C 3/08](#). Folded barrel vaulted roofs are classified in [E04B 7/107](#).

E04B 7/10

Shell structures, e.g. of hyperbolic-parabolic shape; Grid-like formations acting as shell structures; Folded structures {(buildings [E04B 1/32](#))}

Definition statement

This place covers:

Curved roof structures made by shell structures, e.g. roof structures of hyperbolic-parabolic shape made of a thin-shell concrete membrane, or by a plurality of thin-shell units connected together;

Curved roof structures made by grid-like formations acting as shell structures, i.e. thin and substantially self-supporting, that is without the need of intermediate supports;

Curved roof structures made by a folded structure, e.g. globally curved roof structures made by concertina-like folded metal sheets.

References**Informative references**

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

Three-dimensional frameworks	E04B 1/19
Arched buildings structures; Vaulted buildings structures; Folded buildings structures	E04B 1/32
Saw-tooth roofs	E04B 7/12

E04B 7/102**{Shell structures}****Definition statement**

This place covers:

Curved roof structures made by shell structures, e.g. roof structures of hyperbolic-parabolic shape made of a thin-shell concrete membrane, or by a plurality of thin-shell units connected together.

References

Informative references

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

Arched structures comprised entirely of a single panel	E04B 2001/3258
Arched structures comprised of a number of panels connected together	E04B 2001/327
Bending sheet metal	B21D 5/00
Inflatable forms for shaping in situ	E04G 11/04

E04B 7/105

{Grid-like structures}

Definition statement

This place covers:

Curved roof structures made by grid-like formations acting as shell structures, i.e. thin and substantially self-supporting, that is without the need of intermediate supports.

References

Informative references

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

Arched structures having a grid frame	E04B 2001/3235
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E04B 7/107

{Folded structures}

Definition statement

This place covers:

Curved roof structures made by a folded structure, e.g. globally curved roof structures made by concertina-like folded metal sheets.

References

Informative references

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

Arched structures with faceted surfaces	E04B 2001/3294
Structures deriving their rigidity from concertina folds	E04B 1/345
Saw-tooth roofs	E04B 7/12
Corrugating sheet metal	B21D 13/00

E04B 7/12

formed in bays, e.g. sawtooth roofs ([E04B 7/10](#) takes precedence)

Definition statement

This place covers:

Roofs formed in bays, e.g. massive saw-tooth roofs for factory buildings.

References

Limiting references

This place does not cover:

Curved roof structures made by a folded structure, e.g. globally curved roof structures made by concertina-like folded metal sheets	E04B 7/107
---	----------------------------

E04B 7/14

Suspended roofs (suspended tents or canopies in general [E04H 15/04](#))

Definition statement

This place covers:

Suspended roofs, i.e. permanent roofs suspended from a structure, e.g. a roof for a stadium consisting of a membrane suspended by cables, or a roof for a building consisting of a membrane being anchored along its borders on the walls of the building.

References

Limiting references

This place does not cover:

Suspended tents or canopies in general	E04H 15/04
--	----------------------------

Informative references

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

Extraordinary structures; Structures covering a large free area	E04B 1/34 , E04B 1/342
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E04B 7/16

Roof structures with movable roof parts (buildings for special purposes [E04H](#))

References

Limiting references

This place does not cover:

Skylights or domes having movable parts	E04D 13/035
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Informative references

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

Structures characterised by movable, separable or collapsible parts	E04B 1/343
Buildings for special purposes	E04H

E04B 7/163

{characterised by a pivoting movement of the movable roof parts ([E04B 7/166](#) takes precedence)}

References**Informative references**

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

Roof structures with movable parts characterised by a translation movement	E04B 7/166
Skylights having movable parts pivoting about a fixed axis	E04D 13/0351

E04B 7/166

{characterised by a translation movement of the movable roof part, with or without additional movements}

References**Informative references**

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

Roof structures with movable parts characterised by a pivoting movement	E04B 7/163
Skylights having movable parts moving in their own plane	E04D 13/0358

E04B 7/18

Special structures in or on roofs, e.g. dormer windows (in connection with roof coverings [E04D 13/00](#), especially domes [E04D 13/03](#))

References**Limiting references**

This place does not cover:

Special structures on roofs, in connection with roof coverings	E04D 13/00
Skylights and domes	E04D 13/03
Chimneys	E04F 17/00

Glossary of terms

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

Dormer window	Roof window set in a structure that is protruding from the surface of a sloping roof; the window itself is substantially vertical
---------------	---

E04B 7/20

Roofs consisting of self-supporting slabs, e.g. able to be loaded

Definition statement

This place covers:

Roofs consisting of self-supporting slabs, e.g. a saddle roof in which each plane sloping surface is made by a series of adjacent self-supporting slabs resting only on the walls of the building and on the ridge beam of the roof.

References

Limiting references

This place does not cover:

Waterproof roofing slabs comprising two or more layers, e.g. for insulation	E04D 3/35
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Informative references

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

Building panels in general	E04C 2/00
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Special rules of classification

Self-supporting multi-layered roof slabs also used as roof coverings are classified both in [E04B 7/20](#) - [E04B 7/24](#), and in [E04D 3/35](#) or its sub-groups.

E04B 7/205

{the slabs having non-structural supports for roofing materials (for slabs having insulating properties [E04B 7/225](#))}

References

Limiting references

This place does not cover:

Self-supporting insulating slabs for roofs, the slabs having non-structural supports for roofing materials	E04B 7/225
Roof battens	E04D 12/004

Glossary of terms

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

Non-structural supports for roofing materials	Supports like battens, purlins
---	--------------------------------

E04B 7/22

the slabs having insulating properties, e.g. laminated with layers of insulating material

References

Informative references

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

Layered products	B32B
Sandwich panels	E04C 2/288 , E04C 2/292 , E04C 2/296 , E04C 2/365
Waterproof roofing slabs comprising two or more layers, at least one of the layers being composed of insulating material	E04D 3/351
Insulating devices or arrangements insofar as the roof covering is concerned	E04D 13/16

E04B 7/225

{the slabs having non-structural supports for roofing materials}

References

Informative references

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

Roof battens	E04D 12/004
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Glossary of terms

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

Non-structural supports for roofing materials	Supports like battens, purlins
---	--------------------------------

E04B 7/24

the slabs being collapsible {or retractable}, e.g. for transport

References

Informative references

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

Structures characterised by movable, separable or collapsible parts; with hinged parts	E04B 1/343 , E04B 1/344
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E04B 9/00

Ceilings; Construction of ceilings, e.g. false ceilings; Ceiling construction with regard to insulation (ceilings used as forms for making floors [E04B 5/00](#); coverings or linings for ceilings [E04F 13/00](#))

Definition statement

This place covers:

- Ceilings, i.e. suspended ceilings and false ceilings;
- Construction of suspended and false ceilings;
- Suspended and false ceiling construction with regard to insulation.

References

Limiting references

This place does not cover:

Ceilings used as forms for making floors	E04B 5/00
Coverings or linings for ceilings, directly attached to the lower face of the floor slab	E04F 13/00
Plastering, finishing work	E04F 21/00

Special rules of classification

This subclass comprises only suspended ceilings and false ceilings. Ceiling consisting of ceiling panels, coverings or linings attached directly to the lower face of the floor slab are only classified in [E04F 13/00](#).

Ceiling consisting of ceiling panels, coverings or linings indirectly attached to the lower face of the floor slab in a way similar to wall covering panels, e.g. with only one lath in-between wall and panel, are also only classified in [E04F 13/00](#).

E04B 9/001

{characterised by provisions for heat or sound insulation}

Definition statement

This place covers:

Suspended ceilings or false ceilings having provisions for heat or sound insulation.

References

Limiting references

This place does not cover:

Sound absorbing open-work ceilings; Ceilings with acoustic baffles, e.g. sound absorbing panels vertically suspended from the ceiling	E04B 9/34
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Informative references

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

Heat, sound or noise insulation in buildings; with respect to heat only; with respect to sound only	E04B 1/74 ; E04B 1/76 ; E04B 1/82
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Slab shaped heat absorbing elements for buildings	E04B 1/80
Slab shaped sound absorbing elements for buildings	E04B 1/86
Suspended ceilings having slabs, panels	E04B 9/04
Means for suspending the supporting construction of the suspended ceilings from the floor slab, with arrangements for damping vibration	E04B 2009/186
Methods or devices for protecting against or damping noise	G10K 11/00

Special rules of classification

Suspended or false ceilings having insulating slabs or panels with non-specified insulating properties are classified in [E04B 9/04](#), not in [E04B 9/001](#).

E04B 9/003

{with movable parts, e.g. pivoting panels, access doors}

References

Limiting references

This place does not cover:

Access doors mechanically connected to loft ladders	E04F 11/04
---	----------------------------

Informative references

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

Hinges	E05D
Doors	E06B
Recessed bases for lighting devices, e.g. in ceilings	F21V 21/04

E04B 9/005

{composed of imitation beams or beam coverings}

References

Informative references

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

Caps covering surfaces of the supporting construction	E04B 2009/062
Coverings or linings of wood	E04F 13/10

E04B 9/006

{with means for hanging lighting fixtures or other appliances to the framework of the ceiling}

Definition statement

This place covers:

Suspended or false ceilings with means for hanging lighting fixtures or other appliances to the framework of the suspended or false ceiling, e.g. to the T-bars of a suspended ceiling.

References**Informative references**

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

Means for suspending the supporting construction of the suspended ceilings from the floor slab; adjustable	E04B 9/18 , E04B 9/20
Supports for pipes	F16L 3/00
Supporting, suspending or attaching arrangements for lighting devices	F21V 21/00
Suspension of electric conduit channels	H02G 3/263

Special rules of classification

Hanging means directly attached to the lower face of the floor slab are not classified here.

Translucent ceilings, i.e. permitting both the transmission and diffusion of light are classified in [E04B 9/32](#).

E04B 9/008

{with means for connecting partition walls or panels to the ceilings}

References**Informative references**

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

Partition walls; removable partition walls	E04B 2/72 , E04B 2/74
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E04B 9/02

having means for ventilation or vapour discharge

Definition statement

This place covers:

Suspended or false ceilings having means for ventilation or vapour discharge.

References

Informative references

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

Suspended or false ceilings having means for ventilation or vapour discharge, the supporting ceiling grid acting as air diffuser	E04B 2009/026
Ventilation, air conditioning systems; Air-humidification systems	F24F , F24F 6/00
Clean-rooms	F24F 3/167

Special rules of classification

Classify in [E04B 9/02](#) only if the ceiling components themselves, e.g. the ceiling panels or the framework of the ceiling, have something special in relation to ventilation or vapour discharge.

A general ceiling having only openings for ventilation ducts and no other specific ventilation feature, should not be classified in [E04B 9/02](#). Conversely, a clean room ceiling having openings for ventilation ducts, the rest of the ceiling being air-tight, should be classified in [E04B 9/02](#), the air-tightness of the ceiling being a specific feature of the ceiling linked to the ventilation of the clean room.

E04B 9/04

comprising slabs, {panels,} sheets or the like

Definition statement

This place covers:

Suspended or false ceilings comprising slabs, sheets or the like, e.g. suspended ceiling comprising inverted tee-bars and panels.

References

Limiting references

This place does not cover:

Open-work ceilings, e.g. grids	E04B 9/34 - E04B 9/36
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Informative references

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

Slab shaped heat absorbing elements for buildings	E04B 1/80
Slab shaped sound absorbing elements for buildings	E04B 1/86
Building slabs, sheets or panels per se	E04C 2/00
Coverings or linings for walls or ceilings	E04F 13/00
Ceiling panels lifting devices	E04F 21/1805

Special rules of classification

Classify a suspended or false ceiling comprising slabs, sheets or the like in [E04B 9/04](#) only if the slabs, sheet or the like have some special technical feature, e.g. a special composition, a special geometry, special borders.

E04B 9/0421**{comprising ducts}****References****Limiting references***This place does not cover:*

Ceiling heating, cooling and ventilating systems in general	F24D , F24F
---	---

E04B 9/0457**{having closed internal cavities}****References****Limiting references***This place does not cover:*

Ceiling panels having a honeycomb core structure	E04B 9/0442
--	-----------------------------

E04B 9/0478**{of the tray type}****Definition statement***This place covers:*

Ceiling panels consisting of a tray made of a single element, and having 1 to 4 upstanding borders on their sides.

References**Limiting references***This place does not cover:*

Ceiling panels having a frame	E04B 9/0428
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E04B 9/06**characterised by constructional features of the supporting construction {, e.g. cross section or material of framework members}****Definition statement***This place covers:*

Suspended or false ceilings characterised by constructional features of the supporting construction, e.g. by the cross section or the material of T-bar members.

References

Limiting references

This place does not cover:

Constructional features of the means for suspending the supporting construction	E04B 9/18 , E04B 9/20
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Informative references

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

Cross-sectional aspects of metal beams, girders or joists	E04C 2003/0404
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E04B 9/064

{comprising extruded supporting beams}

References

Informative references

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

Extrusion of metal	B21C 23/00
Extrusion of plastics	B29C 48/00

E04B 9/065

{comprising supporting beams having a folded cross-section}

References

Informative references

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

Bending of sheet metal	B21D 5/00
Metal beams made of bent sheet material	E04C 3/07 , E04C 3/09

E04B 9/08

having the capability of expansion {, e.g. in case of fire}

Definition statement

This place covers:

Suspended or false ceilings comprising a supporting construction having the capability of expansion.

E04B 9/10

Connections between parallel members of the supporting construction
([E04B 9/08](#) takes precedence)

Definition statement

This place covers:

Connections between parallel members of the supporting construction, e.g. connections side to side of T-bars or connections tip to tip with an additional joining element

References**Limiting references**

This place does not cover:

Suspended or false ceilings comprising a supporting construction having the capability of expansion.	E04B 9/08
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E04B 9/12

Connections between non-parallel members of the supporting construction
([E04B 9/08](#) takes precedence)

References**Limiting references**

This place does not cover:

Suspended or false ceilings comprising a supporting construction having the capability of expansion.	E04B 9/08
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Informative references

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

Connection details of elongated metal supporting parts	E04B 1/2403
Grid-like ceilings	E04B 9/345
Racks for cabinets	A47B 47/00

Special rules of classification

Grid-like ceilings that are suitable for supporting panels can also be classified in [E04B 9/12](#) or its subgroups.

E04B 9/18

Means for suspending the supporting construction

Definition statement

This place covers:

Means for suspending the supporting construction of the suspended ceiling from the lower face of the floor slab.

References

Informative references

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

Suspended or false ceilings with means for hanging lighting fixtures or other appliances to the framework of the suspended or false ceiling,	E04B 9/006
Separate fastening elements for wall covering elements	E04F 13/0801
Supports for pipes	F16L 3/00
Supporting, suspending or attaching arrangements for lighting devices	F21V 21/00
Suspension of electric conduit channels	H02G 3/263

E04B 9/20

adjustable

Definition statement

This place covers:

Adjustable means for suspending the supporting construction of the suspended ceiling from the lower face of the floor slab, particularly means adjustable in length.

E04B 9/22

Connection of slabs, {panels,} sheets or the like to the supporting construction

Definition statement

This place covers:

Connections of substantially horizontal slabs, sheets or the like to the supporting construction of a suspended or false ceiling.

References

Limiting references

This place does not cover:

Open-work ceilings, e.g. grids	E04B 9/34
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E04B 9/24

with the slabs, {panels,} sheets or the like positioned on {the upperside of}, or held against {the underside of the} horizontal flanges of the supporting construction {or accessory means connected thereto}

References

Informative references

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

Suspended ceilings comprising a supporting grid consisting of inverted T-shaped sections	E04B 9/067 , E04B 9/068
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E04B 9/241

{with the slabs, panels, sheets or the like positioned on the upperside of the horizontal flanges of the supporting construction}

References**Informative references**

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

Suspended ceilings comprising a supporting grid consisting of inverted T-shaped sections	E04B 9/067 , E04B 9/068
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E04B 9/245

{by means of screws, bolts or clamping strips held against the underside of the supporting construction ([E04B 9/26](#) takes precedence)}

References**Informative references**

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

Connections of slabs to the supporting construction of a suspended ceiling by means of snap action of elastically deformable elements held against the underside of the supporting construction	E04B 9/26
Fastening devices in general	F16B

E04B 9/247

{by means of sliding or pivoting locking elements, held against the underside of the supporting construction}

References**Informative references**

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

Fastening devices in general	F16B
------------------------------	----------------------

E04B 9/248

{by means of permanent magnetic force held against the underside of the supporting construction}

References**Informative references**

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

Coverings fixed to walls by means of magnets	E04F 13/088
--	-----------------------------

E04B 9/26

by means of snap action of elastically deformable elements {held against the underside of the supporting construction}

Definition statement

This place covers:

Connections of substantially horizontal slabs, sheets or the like to the supporting construction of a suspended or false ceiling by means of snap action of elastically deformable elements held against the underside of the supporting construction.

E04B 9/28

with the slabs, {panels,} sheets or the like having grooves engaging with horizontal flanges of the supporting construction or accessory means connected thereto

References**Informative references**

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

Suspended ceilings comprising a supporting grid consisting of inverted T-shaped sections	E04B 9/067 , E04B 9/068
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E04B 9/30

characterised by edge details of the ceiling; e.g. securing to an adjacent wall

References**Informative references**

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

Connections between non-parallel members of the supporting construction, one member being discontinuous and abutting against the other member	E04B 9/127
Finishing strips between ceiling and wall	E04F 19/0436

E04B 9/303

{for flexible tensioned membranes}

Definition statement

This place covers:

Suspended or false ceilings comprising a flexible tensioned membrane secured to the supporting construction and/or to the adjacent walls.

References

Informative references

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

Ceiling slabs comprising fabrics tensioned on frames	E04B 2009/0492
Tapestry work	B44C 7/022
Coverings made of fabrics	E04F 13/002
Boards having display surface tensioning means	G09F 15/0025

E04B 9/32

Translucent ceilings, i.e. permitting both the transmission and diffusion of light ({[E04B 9/303](#) and} [E04B 9/34](#) takes precedence; lighting [F21](#))

References

Limiting references

This place does not cover:

Suspended or false ceilings comprising a flexible tensioned membrane secured to the supporting construction and/or to the adjacent walls	E04B 9/303
Grid-like or open-work ceilings, e.g. lattice type ceilings	E04B 9/34
Lighting	F21

Informative references

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

Translucent floors	E04B 5/46
Translucent roofs	E04D 3/06 , E04D 3/28

Special rules of classification

Suspended or false ceilings with means for hanging lighting fixtures or other appliances to the framework of the suspended or false ceiling, e.g. to the T-bars of a suspended ceiling, are classified in [E04B 9/006](#).

E04B 9/34

{Grid-like or} open-work ceilings, e.g. lattice type {box-like modules, acoustic baffles} ([E04B 9/30](#) takes precedence)

References

Limiting references

This place does not cover:

Details of ceiling edges	E04B 9/30
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Informative references

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

Sound or noise insulation in buildings	E04B 1/74 , E04B 1/82
Slab shaped sound absorbing elements for buildings	E04B 1/86
Grids for lighting devices	F21V
Methods or devices for protecting against or damping noise	G10K 11/00

Special rules of classification

Ceilings comprising suspended box-like modules are classified in [E04B 9/34](#).

Ceilings comprising suspended vertical panels used as acoustic baffles are classified in [E04B 9/34](#).

E04B 9/345

{consisting of non-parallel slats, e.g. grids}

References**Informative references**

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

Connections between non parallel members of the supporting construction of a suspended ceiling	E04B 9/12
--	---------------------------

Special rules of classification

Grid-like ceilings are classified in [E04B 9/345](#).

Glossary of terms

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

Slat	A long, thin, flat piece of lumber, metal or plastic.
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E04B 9/36

consisting of parallel slats

Special rules of classification

Open-work ceilings consisting of slats having horizontal principal plane and slats having vertical principal plane are classified in [E04B 9/36](#).