

E04D

**ROOF COVERINGS; SKY-LIGHTS; GUTTERS;
ROOF-WORKING TOOLS (coverings of outer walls by plaster
or other porous material [E04F 13/00](#))**

Definition statement

This subclass/group covers:

Roof coverings including any similar kind of watertight covering against rain, snow, hail, or the like for other parts of buildings; sky-lights for flat or sloped roofs; roof drainage and gutters; roof-working tools

References relevant to classification in this group

This subclass/group does not cover:

Coverings of outer walls by plaster of other porous material	E04F 13/00
Outer coverings for walls not suitable for roof coverings	E04F 13/007
Solar heat collectors on roofs	F24J 2/00
Photovoltaic panels on or for roofs	H01L 31/0482

E04D 1/00

**Roof covering by making use of tiles, slates, shingles, or
other small roofing elements (roofing supports [N: and
underlayers] [E04D 12/00](#))**

Definition statement

This subclass/group covers:

Small roof covering elements, like grooved or vaulted tiles, slates, shingles ([E04D 1/02](#) to [E04D 1/22](#)); Special small roof covering elements characterized by their structure or their purpose ([E04D 1/24](#) to [E04D 1/30](#)); Fastenings for small roof covering elements and devices for sealing the spaces between small roof covering elements ([E04D 1/34](#) to [E04D 1/365](#)).

References relevant to classification in this group

This subclass/group does not cover:

Roofing supports and under-layers	E04D 12/00
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Outer covering for walls not suitable for roof covering	E04F 13/007
Solar heat collectors in the form of shingles or tiles	F24J 2/0455
Roof tile elements including solar cells	H01L 31/0482

Special rules of classification within this group

Use [E04D 1/00](#) to [E04D 1/36](#) to classify the additional non-inventive aspects

E04D 1/02

Grooved or vaulted roofing elements ([E04D 1/28](#), [E04D 1/30](#) take precedence)

Definition statement

This subclass/group covers:

Small grooved or vaulted roof covering elements, like Spanish, Roman or Barrel tiles

References relevant to classification in this group

This subclass/group does not cover:

Roofing elements comprising two or more layers, e.g. for insulation	E04D 1/28
Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles	E04D 1/30

Special rules of classification within this group

Classify in [E04D 1/04](#) to [E04D 1/10](#) if the materials of the roofing elements are specified and in [E04D 1/02](#) if they are not.

Classify according to the composition of the roofing elements and their geometry

E04D 1/12

Roofing elements shaped as plain tiles or shingles, i.e. with flat outer surface ([E04D 1/28](#), [E04D 1/30](#) take precedence)

Definition statement

This subclass/group covers:

Small roof covering elements having a flat outer surface, like plain tiles, shingles or slates

References relevant to classification in this group

This subclass/group does not cover:

Roofing elements comprising two or more layers, e.g. for insulation	E04D 1/28
Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles	E04D 1/30

Special rules of classification within this group

Classify in [E04D 1/14](#) to [E04D 1/22](#) if the materials of the roofing elements are specified and in [E04D 1/12](#) if they are not.

Classify according to the composition of the roofing elements and their geometry.

E04D 1/24

Roofing elements with cavities, e.g. hollow tiles ([E04D 1/28](#) takes precedence)

Definition statement

This subclass/group covers:

Small roof covering elements having internal cavities in the thickness of the roof covering elements, e.g. hollow tiles

References relevant to classification in this group

This subclass/group does not cover:

Roofing elements comprising two or more layers, e.g. for insulation	E04D 1/28
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E04D 1/28

Roofing elements comprising two or more layers, e.g. for insulation

Definition statement

This subclass/group covers:

Roofing elements comprising two or more layers, the layers having a thickness and not being simple coating layers

Informative references

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

Layered products	B32B
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E04D 1/30

Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles ([E04D 3/40](#), [N: [E04D 13/03](#), [E04D 13/14](#)] take precedence)

Definition statement

This subclass/group covers:

Special small roof covering elements, characterized by their special purpose, like ridge tiles, turving tiles, gutter tiles, gable tiles, ventilation tiles, special tiles allowing walking on the roof

References relevant to classification in this group

This subclass/group does not cover:

Slabs or sheets locally modified for auxiliary purposes	E04D 3/40
Sky-lights; domes; ventilating sky-lights	E04D 13/03
Junction of roof sheathings to chimneys or other parts extending above the roof	E04D 13/14

E04D 1/36

Devices for sealing the spaces or joints between roof-covering elements. (sealing joints not restricted to roof-covering elements [E04B 1/68](#); [N: channels at the intersection of roof surfaces [E04D 13/0445](#)])

Definition statement

This subclass/group covers:

Devices for sealing the spaces or joints between small roof covering elements, like sealing-strips

References relevant to classification in this group

This subclass/group does not cover:

Sealing joints not restricted to roof-covering elements	E04B 1/68
Channels at the intersection of roof surfaces	E04D 13/0445

E04D 3/00

Roof covering by making use of flat or curved slabs or stiff sheets

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Roof covering by making use of tiles, slates shingles, or other small roofing elements	E04D 1/00
Strip-shaped roofing elements appearing as a row of shingles	E04D 1/26
Roof covering by making use of flexible material, e.g. roofing membranes	E04D 5/00

Built-up roofs	E04D 11/02
Roofing supports and under-layers	E04D 12/00
Outer covering for walls not suitable for roof covering	E04F 13/007
Roof slab elements comprising solar collectors	F24J 2/045
Roof slab elements comprising solar cells	H01L 31/0482
Sunshades; Awnings	E04F 10/00
Coverings for buildings of particular purpose, e.g. bus shelters	E04H

Special rules of classification within this subclass/group

Use [E04D 3/00](#) to [E04D 3/405](#) to classify additional information

E04D 3/02

of plane slabs, slates, or sheets, or in which the cross-section is unimportant

Definition statement

This subclass/group covers:

This subclass/group covers:

Roofing elements consisting of plane slabs, slates, or sheets not having ribs, corrugations or profiles protruding neither from the plane nor from the margins of the roofing element.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation	E04D 3/35
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Special rules of classification within this subclass/group

Classify in [E04D 3/04](#) to [E04D 3/18](#) if the materials of the roofing elements are specified and in [E04D 3/02](#) if they are not.

E04D 3/04

of concrete or ceramics

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Plane slabs of asbestos cement	E04D 3/18
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E04D 3/06

of glass or other translucent material; Fixing means therefor

Definition statement

This subclass/group covers:

This subclass/group covers:

Roof covering for buildings by making use of plane slabs or sheets of glass or other translucent material.

Fixing means specially adapted therefor.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Sky-lights	E04D 13/03
Dormer-windows	E04B 7/18
Fixing glass panes by means applicable to windows	E06B 3/54

Informative references

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

Roof covering for buildings by making use of slabs or sheets of glass or other translucent material having special cross-sections, i.e. curved, corrugated	E04D 3/28
Loggias	E04B 1/0046
Bay windows	E06B 1/363
Greenhouses	A01G 9/14
Curtain walls	E04B 2/88
Hollow multi-walled translucent panels with integrated webs	E04C 2/543
Windows	E06B 3/00
Small buildings for limited occupation	E04H 1/12
Telephone cabinets	E04H 1/14

Special rules of classification within this subclass/group

Classify in [E04D 3/08](#) to [E04D 3/14](#) if glazing bars are included. Classify in [E04D 3/06](#) either if glazing bars are not included, or if the plane slabs or sheets of glass or other translucent material have some special technical features.

Classify also in [E04D 3/06](#) the plane multi-walled plastic roof-panels, even if only implicitly transparent or translucent, e.g. made of a plastic that is known for being transparent.

E04D 3/08

with metal glazing bars

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

constructions of roof intersections or hipped ends	E04B 7/06 , E04B 7/063
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Informative references

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

details of the cross-sections of metallic profiles	E04C 2003/0404
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E04D 3/24

with special cross section, e.g. with corrugations on both sides, with ribs, flanges, or the like

Definition statement

This subclass/group covers:

This subclass/group covers:

Roofing elements consisting of curved slabs or stiff sheets or of plane slabs or stiff sheets having ribs, corrugations, flanges or profiles protruding from the surface or the margins of the roofing element.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation	E04D 3/35
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Special rules of classification within this subclass/group

Classify in [E04D 3/26](#) to [E04D 3/34](#) if the materials of the roofing elements are specified and in [E04D 3/24](#) if they are not.

E04D 3/28

of glass or other translucent material

Definition statement

This subclass/group covers:

This subclass/group covers:

Roof covering for buildings by making use of curved slabs or sheets or of plane slabs or sheets having ribs, corrugations, etc., the slabs or sheets being made of glass or other translucent material.

Informative references

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

Hollow multi-walled translucent panels with integrated webs	E04C 2/543
Roof covering slabs or sheets of glass or other translucent material with specially profiled marginal portions for connecting purposes	E04D 2003/285

Special rules of classification within this subclass/group

When glazing bars are present classify also in [E04D 3/08](#) to [E04D 3/14](#)

E04D 3/30

of metal

Special rules of classification within this subclass/group

If the special technical features disclose only how the metal roofing elements are connected between themselves or in how they are fastened to the underlying roof structure, then classify only in [E04D 3/36](#) or in its sub-groups.

E04D 3/35

Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation

Definition statement

This subclass/group covers:

This subclass/group covers:

Waterproof roofing slabs or stiff sheets either flat or corrugated comprising two or more layers, e.g. for insulation, and used as roof covering.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Multi-layered self-supporting roof slabs, and not generally used as roof covering	E04B 7/20 - E04B 7/24
Insulating devices or arrangements in the roof covering	E04D 13/16
Connecting, fastening of double roof covering	E04D 3/3608

Informative references

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

Sandwich panels	E04C 2/288 , E04C 2/292 , E04C 2/296 , E04C 2/365
Layered products	B32B

Special rules of classification within this subclass/group

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

E04D 3/36

Connecting; Fastening

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting, in the sense of connecting means to connect adjacent roofing slabs or stiff sheets together along their margins, directly or indirectly, e.g. through a bridging element.

Fastening, in the sense of fastening means to fasten roofing slabs or stiff sheets to the underlying roof structure.

Informative references

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

Fastenings for attaching small roof-covering elements to the supporting elements	E04D 1/34
Roof covering slabs or sheets of glass or other translucent material with specially profiled marginal portions for connecting purposes	E04D 2003/285
Multi-layered roofing slabs or stiff sheets comprising insulating layers, and in which the insulating layers of adjacent slabs have cooperating edges	E04D 3/355
Separate fastening elements fixed to the roof structure and consisting of parts permitting relative movement to the roof structure of the marginal portions of the slabs or sheets	E04D 2003/3615
Fastening means for roof coverings made of flexible materials	E04D 5/14
Apparatus or tools for roof working, for roof coverings comprising slabs or stiff sheets	E04D 15/04
Connection of slab-shaped building elements with each other	E04B 1/61
Separate fastening elements for wall coverings	E04F 13/0801
Devices for fastening constructional elements together	F16B

Special rules of classification within this subclass/group

Fastening means of roofing slabs or stiff sheets, in their fields, to the underlying roof structure are classified in groups [E04D 3/3601](#) to [E04D 3/3608](#).

Fastening means of the borders of roofing slabs or stiff sheets to the underlying roof structure are classified in groups [E04D 3/361](#) to [E04D 3/369](#).

Connecting means between adjacent roofing slabs or stiff sheets are classified in groups [E04D 3/361](#) to [E04D 3/369](#).

In groups [E04D 3/361](#) to [E04D 3/368](#), additional small fastening elements, e.g. nails, screws, are not considered as separate connecting elements.

E04D 3/3601

of roof covering supported by the roof structure with interposition of a insulating layer

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Fastening means comprising spacer means adapted to the shape of the profiled roof covering	E04D 3/3607
Fastening means for double roof covering or over-roofing	E04D 3/3608
Connecting means between adjacent roofing slabs	E04D 3/361 to E04D 3/369

E04D 3/3603

the fastening means being screws or nails

Informative references

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

Apparatus or tools for roof working, for roof coverings comprising slabs or stiff sheets	E04D 15/04
Apparatus or tools for fixing roofing slabs or stiff sheets to the roof	E04D 2015/042 , E04D 2015/045 , E04D 2015/047

structure, by nailing, by screwing	
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E04D 3/3605

of roof covering supported directly by the roof structure

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Fastening means comprising spacer means adapted to the shape of the profiled roof covering	E04D 3/3607
Fastening means for double roof covering or over-roofing	E04D 3/3608
Connecting means between adjacent roofing slabs	E04D 3/361 to E04D 3/369

E04D 3/3606

the fastening means being screws or nails

Informative references

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

Apparatus or tools for roof working, for roof coverings comprising slabs or stiff sheets	E04D 15/04
Apparatus or tools for fixing roofing slabs or stiff sheets to the roof structure, by nailing, by screwing	E04D 2015/042 , E04D 2015/045 , E04D 2015/047

E04D 3/3607

the fastening means comprising spacer means adapted to the shape of the profiled roof covering

Definition statement

This subclass/group covers:

This subclass/group covers:

Fastening means for a profiled roof-covering, comprising spacer means in between the roof covering and the underlying roof structure, the spacer means being adapted to the shape of the profiled roof covering.

E04D 3/3608

for double roof covering or over-roofing

Informative references

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

Insulating of pre-existing roofs	E04D 13/1681
Inverted roofs	E04D 13/1662

E04D 3/361

by specially-profiled marginal portions of the slabs or sheets

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting adjacent roofing slabs or stiff sheets together by specially-profiled marginal portions of the slabs or sheets, e.g. standing seams, optionally with additional fastening of the border of the slabs or sheets to the underlying roof structure.

Informative references

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

Connections of slab-shaped building elements, by means between frontal surfaces, i.e. edge surfaces	E04B 1/612
Joining sheets or panels to one another or to strips parallel to them; in abutting relationship	F16B 5/00 ; F16B 5/0004

Special rules of classification within this subclass/group

Use [E04D 3/36](#) to [E04D 3/369](#) to classify additional information.

For multi-layered roofing slabs classify according to the marginal portions of the upper roofing layer of the roofing slabs.

Connections of opaque roofing slabs, by specially profiled marginal portions of the slabs, and in the thickness of the slab, should also be classified in [E04D 2003/3617](#); connections of glass, transparent or translucent roofing slabs, by specially profiled marginal portions of the slabs, should be classified in [E04D 2003/285](#).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Standing seam	A seam between two adjacent roofing slabs or sheets, consisting of two adjacent and upwardly oriented marginal portions of the two slabs or sheets
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E04D 3/362

by locking the edge of one slab or sheet within the profiled marginal portion of the adjacent slab or sheet, e.g. using separate connecting elements

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting adjacent roofing slabs or stiff sheets together by specially-profiled marginal portions of the slabs or sheets and by locking the specially-profiled marginal portion of one slab or sheet within the profiled marginal portion of the adjacent slab or sheet, with or without separate connecting means.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Connecting adjacent roofing slabs or stiff sheets together by specially profiled marginal portions of the slabs or sheets by folding of the edges	E04D 3/364
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Informative references

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

With snap action	E04D 3/363
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Special rules of classification within this subclass/group

Additional small fastening elements, e.g. nails, screws, are not considered to be separate connecting elements.

When it is explicit that there is a snap action, [E04D 3/363](#) takes precedence

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Locking the marginal portions of the slabs or sheets	Completely limiting movement of the marginal portions of the slabs or sheets in a direction perpendicular to the edge of the slabs or sheets
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E04D 3/363

with snap action

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting adjacent roofing slabs or stiff sheets together by specially-profiled marginal portions of the slabs or sheets with snap action, the snap action occurring directly between the two adjacent specially-profiled marginal portions or between at least one specially-profiled marginal portion and a

fastening element to the underlying roof structure.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

By closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips	E04D 3/366
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Informative references

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

Connecting adjacent roofing slabs or stiff sheets together by locking the specially-profiled marginal portion of one slab or sheet within the specially-profiled marginal portion of the adjacent slab or sheet	E04D 3/362
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Special rules of classification within this subclass/group

Connecting means between adjacent roofing slabs or sheets in which there is only a snap action between the slabs or sheets and a bridging element, and not directly between the marginal portions of the slabs or sheets or between said marginal portions and a fastening element to the underlying roof structure, are classified in [E04D 3/366](#).

E04D 3/364

by folding of the edges

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting adjacent roofing slabs or stiff sheets together by specially-profiled marginal portions of the slabs or sheets, by folding of the edges of the roofing slabs or stiff sheets, e.g. rolled seams, after the roofing slabs or stiff sheets have been mounted on the roof.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

By forcing together the marginal portions of adjacent slabs or sheets, e.g. crimping, clamping	E04D 3/368
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Informative references

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

Working apparatus or tools for roof covering comprising flexible sheets, e.g. metallic sheets	E04D 15/04
Connecting metallic sheets by folding	B21D 39/02 , B21D 39/021

E04D 3/365

by simple overlapping of the marginal portions with use of separate connecting elements, e.g. hooks or bolts for corrugated sheets

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting of adjacent roofing slabs or stiff sheets by simple overlapping of the marginal portions, with or without the use of separate connecting elements, e.g. roof-tile like connections and connections allowing movement in a direction perpendicular to the joint.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Connecting by means of standing seams	E04D1/361 to E04D1/364
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Informative references

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

Connecting adjacent roofing slabs or stiff sheets together by specially-profiled marginal portions of the slabs or sheets	E04D 3/361
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Special rules of classification within this subclass/group

Additional small fastening elements, e.g. nails, screws, are not considered to be separate connecting elements.

For multi-layered roofing slabs classify according to the features of the marginal portions of the upper roofing layer.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Standing seam	A seam between two adjacent roofing slabs or sheets, consisting of two adjacent and upwardly oriented marginal portions of the two slabs or sheets
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E04D 3/366

by closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting of adjacent roofing slabs or stiff sheets by closing the space between the slabs or sheets by structural or non-structural gutters, bulges, or bridging elements, not forcing together the marginal portions of the slabs or sheets, e.g. by caps protecting the connection against the weather, by bridging elements having also a structural function, by non-structural strip like

bridging elements inserted into grooves in the thickness of the roofing slabs, by gutters draining the water at the joint between the slabs.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Bridging elements forcing, e.g. crimping or clamping, the marginal portions of adjacent slabs or sheets	E04D 3/368
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Informative references

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

Devices for sealing spaces or joints between roof-covering elements	E04D 3/38
Connections of slab-shaped building elements, by means between frontal surfaces, i.e. edge surfaces	E04B 1/612
Joining sheets or panels to one another in abutting relationship	F16B 5/0004

Special rules of classification within this subclass/group

Connections between adjacent roofing slabs or sheets not presenting a gap between the slabs or sheets are also classified in [E04D 3/366](#), provided there is a bridging element, e.g. cap, gutter, strip.

Connections between adjacent roofing slabs or sheets through a bridging element exerting a snap action are also classified here.

Roofs having rafters or supporting elements which also perform the function of bridging elements between the roofing slabs should also be classified in this group.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Bulge	separate bridging element
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E04D 3/368

by forcing together the marginal portions of adjacent slabs or sheets

Definition statement

This subclass/group covers:

This subclass/group covers:

Connecting adjacent roofing slab or sheets by forcing together, e.g. crimping or clamping, the marginal portions of the adjacent slabs or sheets.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Connecting by means of bridging elements not forcing together the marginal portions of adjacent slabs or sheets	E04D 3/366
Connecting by folding of the edges of the roofing slabs or stiff sheets, e.g. rolled seams	E04D 3/364

Informative references

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

Working apparatus or tools for roof covering comprising flexible sheets, e.g. metallic sheets	E04D 15/04
Connecting metallic sheets by folding	B21D 39/02 , B21D 39/021

E04D 3/369

by welding of the marginal portions of adjacent slabs or

sheets also by soldering, gluing

Informative references

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

Working apparatus or tools for roof covering comprising flexible sheets, e.g. metallic sheets	E04D 15/04
Resistance welding of metals	B23K 11/00
Welding of plastics	B29C65

E04D 3/38

Devices for sealing spaces or joints between roof-covering elements

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Roof-covering elements connecting means; roof-covering elements fastening means	E04D 3/36
Bridging devices connecting adjacent roofing slabs or sheets and sealing the spaces or joints in between	E04D 3/366
Bridging devices forcing together the marginal portions of adjacent roofing slabs or sheets and sealing the spaces or joints in between	E04D 3/368
Sealing joints not restricted to roof-covering elements	E04B 1/68

Informative references

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

Devices for sealing the spaces or	E04D 1/36
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joints between small roof-covering elements, ridge sealing	
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E04D 3/40

Slabs or sheets locally modified for auxiliary purposes, e.g. for resting on walls, for serving as guttering; Elements for particular purposes, e.g. ridge elements, specially designed for use in conjunction with slabs or sheets

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Ridge sealing	E04D 1/36
Trimming strips; edge strips; fascias	E04D 13/15
Gutters	E04D 13/064
Ventilation of roof coverings, on the ridge of the roof	E04D 13/174
Solar collectors on roofs	F24J 2/045
Photovoltaic devices on roofs	H01L 31/0482

Informative references

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

Drainage of the roof surface	E04D 13/04
Ventilation of roof coverings	E04D 13/17

E04D 3/405

Wall copings

Informative references

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

Top wall-plates	E04C 1/39
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E04D 5/00

Roof covering by making use of flexible material, e.g. supplied in roll form (using stiff sheets [E04D 3/00](#); gravelling of flat roofs [E04D 7/00](#); [N: granulated roof covering [E04D 7/005](#)]; built-up roofs [E04D 11/02](#))

Definition statement

This subclass/group covers:

Roof covering by making use of flexible material of substantial dimensions, like flexible membranes, flexible sheets, flexible foils supplied in roll form

References relevant to classification in this group

This subclass/group does not cover:

Roof covering using stiff sheets	E04D 3/00
Gravelling of flat roofs; roof covering exclusively consisting of sealing masses applied in situ	E04D 7/00
Granulated roof covering	E04D 7/005
Built-up roofs	E04D 11/02

Informative references

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

Layered products	B32B
Roofing felt	D06N 5/00
Apparatus or tools for roof working, for roof coverings comprising flexible material	E04D 15/04
Apparatus or tools for handling roofing or sealing material in roll form	E04D 15/06

Special rules of classification within this group

Use [E04D 5/00](#) to [E04D 5/149](#) to classify the additional information

E04D 5/02

of materials impregnated with sealing substances, e.g. roofing felt

Definition statement

This subclass/group covers:

Roof covering by making use of flexible materials impregnated with sealing substances, e.g. roofing felt impregnated with asphalt or bitumen

References relevant to classification in this group

This subclass/group does not cover:

Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen	E04D 5/10
Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12

Informative references

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

Roofing felt	D06N 5/00
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E04D 5/04

by making use of metal foils

Definition statement

This subclass/group covers:

Roof covering by making use of flexible metal foils. like flexible metal foils supplied in roll form

References relevant to classification in this group

This subclass/group does not cover:

Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen	E04D 5/10
Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12

E04D 5/06

by making use of plastics

Definition statement

This subclass/group covers:

Roof covering by making use of flexible sheets, membranes or foils of plastics, like plastic sheets supplied in roll form

References relevant to classification in this group

This subclass/group does not cover:

Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen	E04D 5/10
Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12

Informative references

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

Producing foils from plastics or	B29D 7/00 , C08J 5/18
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substances in a plastic state	
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Special rules of classification within this group

Asphalt or bitumen are not considered plastics in [E04D 5/06](#)

E04D 5/08

by making use of other materials

Definition statement

This subclass/group covers:

Roof covering by making use of flexible foils, sheets or membranes consisting of materials not covered by groups [E04D 5/02](#) to [E04D 5/06](#)

References relevant to classification in this group

This subclass/group does not cover:

Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen	E04D 5/10
Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12

E04D 5/10

by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen

Definition statement

This subclass/group covers:

Roof covering by making use of flexible foils, sheets or membranes consisting of compounded or laminated materials, e.g. flexible metal foils or plastic films coated with bitumen

References relevant to classification in this group

This subclass/group does not cover:

Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12
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Informative references

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

Layered products	B32B
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Special rules of classification within this group

Flexible roofing materials impregnated with sealing substances, e.g. roofing felt impregnated with asphalt or bitumen, are not considered compounded or laminated materials in [E04D 5/10](#), and are classified in [E04D 5/02](#)

E04D 5/12

Specially modified, e.g. perforated, with granulated surface, with attached pads

Definition statement

This subclass/group covers:

Roof covering by making use of specially modified flexible foils, sheets or membranes, like flexible foils, sheets or membranes having a granulated surface, or having attached pads

Informative references

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

Fastening means for roof coverings comprising flexible materials	E04D 5/14 - E04D 5/148
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E04D 5/14

Fastening means therefor

Definition statement

This subclass/group covers:

Fastening means for roof coverings comprising flexible materials

Informative references

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

Apparatus or tools for roof working, for roof coverings comprising flexible material	E04D 15/04
Fastening means to fasten roofing slabs or stiff sheets to the roof structure	E04D 3/36
Flexible roof covering materials specially modified, e.g. perforated, with granulated surface, with attached pads	E04D 5/12
Devices for fastening constructional elements together	F16B

E04D 5/144

[N: Mechanical fastening means]

Definition statement

This subclass/group covers:

Mechanical fastening means for flexible roof covering material, like nails, screws, discs, clips, strips perforating or not the flexible material

Informative references

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

Devices for fastening constructional elements together	F16B
Apparatus for fixing a flexible material to the roof supporting structure, by nailing, by screwing	E04D 2015/042 , E04D 2015/045 , E04D 2015/047

E04D 5/145

[N: Discrete fastening means, e.g. discs or clips]

Informative references

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

Fastening of roofing slabs or stiff sheets to the roof structure, the fastening means being screws or nails	E04D 3/3603 , E04D 3/3606
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E04D 5/147

[N: not perforating the flexible material]

References relevant to classification in this group

This subclass/group does not cover:

Fastening by gluing	E04D 5/148
Fastening by welding	E04D 5/149

E04D 5/148

[N: fastening by gluing]

Definition statement

This subclass/group covers:

Fastening of flexible roof covering material by making use of glue or adhesive

Informative references

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

Tools for applying glue in general	B05C
Joining sheets or webs of paper, cardboard, metal foil or plastic by adhesives	B29C 65/00 , B65H 21/00
Gluing of plastics	B29C 65/48

Adhesive films or foils	C09H 9/02
Adhesives	C09J
Attachment devices using adhesives	F16B 47/00

E04D 5/149

[N: fastening by welding]

Definition statement

This subclass/group covers:

Fastening of flexible roof covering material by welding

Informative references

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

Soldering, welding of metal	B23K
Welding of plastics	B29C 65/00

E04D 7/00

Roof covering exclusively consisting of sealing masses applied in situ; Gravelling of flat roofs

Definition statement

This subclass/group covers:

This subclass/group covers:

Roof coverings where the roof covering layer is formed by sealing masses, e.g. asphalt, bitumen, applied in situ;

Gravelling of roofs by applying loss gravel or granules in situ

Informative references

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

Sealing of building surfaces with sealing masses applied in situ	E04B 1/66
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Sealing of building joints with sealing masses applied in situ	E04B 1/6801
Bituminous sealing masses	C08L 95/00

E04D 7/005

characterised by loose or embedded gravel or granules as an outer protection of the roof covering

Definition statement

This subclass/group covers:

This subclass/group covers:

Gravelling of roofs by applying loss gravel or granules in situ, as an outer protection of the roof covering

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Flexible roof covering materials, e.g. membranes or sheets, having a pre-made granulated surface	E04C 5/12
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E04D 9/00

Roof covering by using straw, thatch, or like materials

Informative references

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

Impregnation against incendiary damage	B27K
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E04D 11/00

Roof covering, as far as not restricted to features covered by

only one of groups [E04D 1/00](#) to [E04D 9/00](#); Roof covering in ways not provided for by groups [E04D 1/00](#) to [E04D 9/00](#), e.g. built-up roofs, elevated load-supporting roof coverings

References relevant to classification in this subclass/group

This subclass/group does not cover:

Places in relation to which this subclass/group is residual:

Supports for elevated load-supporting roof coverings	E04D 11/005
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Special rules of classification within this subclass/group

Use [E04D 11/00](#) to [E04D 11/02](#) to classify additional information

E04D 11/002

consisting of two or more layers, at least one of the layers permitting turfing of the roof

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Turfing tiles	E04D 2001/308
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Informative references

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

Growing turf	A01G 1/002
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E04D 11/005

Supports for elevated load-supporting roof coverings, e.g. height-adjustable spacers

Definition statement

This subclass/group covers:

This subclass/group covers:

Supports, e.g. height-adjustable spacers, for load-supporting roof coverings on roofs, e.g. for elevated terrace floors on flat roofs.

Informative references

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

Devices allowing walking on the roof or in the gutter	E04D 13/12
Supporting structures for sectional false floors	E04F 15/02447

Special rules of classification within this subclass/group

Documents having tiles resting directly on the flat roofing surface without separate supports or spacers between the roofing surface and the tiles, e.g. normal terrace floors on flat roofs, should be classified in [E04D 11/00](#).

E04D 11/02

Build-up roofs, i.e. consisting of two or more layers bonded together in situ, at least one of the layers being of watertight composition

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Gravelling of flat roofs	E04D 7/005
Venting or ventilation of roof coverings	E04D 13/17

Informative references

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

Roof covering by making use of flexible material, e.g. supplied in roll form	E04D 5/00
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Roof underlay membranes	E04D 12/002
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Special rules of classification within this subclass/group

Roof covering consisting of only one layer of flexible material should be classified in [E04D 5/00](#) to [E04D 5/149](#).

Documents having tiles resting directly on the flat roofing surface without separate supports or spacers between the roofing surface and the tiles, e.g. normal terrace floors on flat roofs, should be classified in [E04D 11/00](#)

E04D 12/00

Non-structural supports for roofing materials, e.g. battens, boards

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Built-up roofs	E04D 11/02
Roof covering insulation	E04D 13/16
Self-supporting slabs with non-structural supports for roofing materials	E04B 7/205 ; E04B 7/225
Roof constructions consisting of a plurality of parallel similar trusses supporting load-bearing purlins	E04B 7/024

Special rules of classification within this subclass/group

Non-structural boards which support battens and/or roofing materials should be classified in [E04D 12/00](#).

If the roof battens or roof purlins, as such, have some relevant special feature, then always give a class in [E04D 12/004](#).

Use [E04D 12/00](#) to [E04D 12/008](#) to classify additional information.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Roof batten or roof purlin	In an inclined roof, an horizontal profile, e.g. wooden or metallic, for directly supporting the roof covering elements consisting of shingles, tiles, roofing slabs or stiff sheets; the roof battens or roof purlins are supported by the roof rafters, extending in the direction of the roof slope, or on the roof surface, e.g. for a roof made of concrete slabs.
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E04D 12/002

Sheets of flexible material, e.g. roofing tile underlay

Definition statement

This subclass/group covers:

This subclass/group covers:

Sheets of flexible material, both water/vapour permeable or not, used as roof underlay and not as roof covering

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Roof covering by making use of flexible material	E04D 5/00
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Informative references

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

House wraps, i.e. air or moisture barrier sheets or foils	E04B 1/625
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Manufacture of semi-permeable membranes	B061D67/00 - B01D 71/00
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E04D 12/004

Battens

Definition statement

This subclass/group covers:

This subclass/group covers:

Battens for supporting roof covering elements as defined in groups [E04D 1/00](#) to [E04D 3/40](#), i.e. small roof covering elements, roofing slabs or stiff sheets.

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

Self-supporting slabs with non-structural supports for roofing materials	E04B 7/205 ; E04B 7/225
Roof constructions consisting of a plurality of parallel similar trusses supporting load-bearing purlins	E04B 7/024

Special rules of classification within this subclass/group

If the roof battens or roof purlins, as such, have some relevant special features, then always give a class in [E04D 12/004](#)

E04D 12/006

Batten-supporting means

Definition statement

This subclass/group covers:

This subclass/group covers:

Batten-supporting means located between the roof structure, e.g. rafters, and the battens

E04D 12/008

Ridge-batten brackets

Definition statement

This subclass/group covers:

This subclass/group covers:

Specially adapted brackets to support the ridge-batten

E04D 13/00

Special arrangements or devices in connection with roof coverings; [N: Protection against birds]; Roof drainage; [N: Sky-lights] (ventilation tiles [E04D 1/30](#); ventilation slabs [E04D 3/40](#); internal channels [E04F 17/00](#); elements therefor, see the relevant groups)

Definition statement

This subclass/group covers:

Provisions against atmospheric or animal influences on roofs ([E04D 13/002](#) to [E04D 13/008](#)); Sky-lights, domes and roof covering aspects thereof ([E04D 13/02](#) to [E04D 13/0358](#)); Roof drainage, roof gutters, down pipes ([E04D 13/04](#) to [E04D 13/08](#)); Special devices or arrangements for roofs, e.g. snow-traps, junctions of roof sheathings to chimneys, roof trimming strips, roof edge strips, fascias ([E04D 13/14](#) to [E04D 13/1585](#)); Insulating devices for the roof covering ([E04D 13/16](#) to [E04D 13/1693](#)); Ventilation of roof coverings ([E04D 13/17](#) to [E04D 13/178](#))

References relevant to classification in this group

This subclass/group does not cover:

Ventilation tiles	E04D 1/30
Solar collectors on roofs	F24J 2/045 , F24J 2/0455
Photovoltaic devices on roofs, e.g. solar cells	H01L 31/0482 , H01L 31/0483

Informative references

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

Ventilation roofing slabs	E04D 3/40
Apparatus or tools for roof working	E04D 15/00
Internal channels, e.g. drainage channels, chimneys, air-ducts	E04F 17/00

E04D 13/002

Provisions for preventing vegetational growth, e.g. fungi, algae or moss

Informative references

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

Biocides, plant growth regulators	A01N 25/00-A01N 65/00
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E04D 13/004

[N: Protection against birds, mice or the like (scaring devices for birds in general [A01M 29/00](#))]

Informative references

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

Scaring devices for birds in general	A01M 29/00
Biocides, pest repellants or attractants	A01N 25/00-A01N 65/00
Ventilation on the eaves of the roof	E04D 13/178

E04D 13/02

Roof-covering aspects of dormer windows ([E04D 13/14](#) takes precedence; structures therefor [E04B 7/18](#))

Definition statement

This subclass/group covers:

Sealing between the structure of dormer windows and the roof covering

References relevant to classification in this group

This subclass/group does not cover:

Roof covering aspects of sky-lights	E04D 13/03 - E04D 13/0358
Junctions of roof sheathings to chimneys or other parts extending above the roof	E04D 13/14

Informative references

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

Structures for dormer windows	E04B 7/18
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Glossary of terms

In this subclass/group, 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
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E04D 13/03

Sky-lights; Domes; Ventilating sky-lights ([E04D 13/14](#) takes precedence; structures therefor, [N: e.g. dormer windows] [E04B 7/18](#); [N: saw-tooth roofs with light-transmission [E04B 7/12](#)])

Definition statement

This subclass/group covers:

Roof sky-lights of flat, domed or vaulted shape, their structures, their mechanisms, their connecting means to the roof structure, their ventilating means, their safety means and other means or accessories therefor

References relevant to classification in this group

This subclass/group does not cover:

Junctions of roof sheathings to chimneys or other parts extending above the roof	E04D 13/14
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Informative references

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

Saw-tooth roofs with light-transmission	E04B 7/12
Structures for dormer windows	E04B 7/18
Roof covering by making use of plane slabs of glass or translucent material	E04D 3/06
Roof covering by making use of slabs having a special cross-section and made of glass or other translucent material	E04D 3/28
Windows in general	E06B

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Sky-light	Window, roof lantern or oculus placed on the roof of a building and which is horizontal or parallel to the surface of the roof
Dome	Roof window having a domed shape, i.e. being curved along any two perpendicular directions
Vaulted shape	Having the shape of a vault, i.e. being curved along one direction only, like a cylinder

E04D 13/031

[N: characterised by a frame for connection to an inclined roof]

Definition statement

This subclass/group covers:

Sky-lights or domes having a frame mainly installed in the plane of a sloping roof.

References relevant to classification in this group

This subclass/group does not cover:

Sky-lights or domes having a curb frame installed in the plane of a sloping roof	E04D 13/0315
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E04D 13/0315

[N: characterised by a curb frame]

Definition statement

This subclass/group covers:

Sky-lights or domes having a curb frame installed either on a sloping roof or on a flat roof

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Curb frame	Raised frame, i.e. a frame that raises from the surface of the roof
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Synonyms and Keywords

Curb	Kerb
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E04D 13/032

[N: Supports or connecting means for sky-lights of vaulted shape]

Definition statement

This subclass/group covers:

Supports or connecting means for all kinds of elongated sky-lights, i.e. comprising sky-lights of vaulted shape, but also saddle-roof like elongated sky-lights

E04D 13/0325

[N: provided with ventilating means (roof ventilation [F24F 7/02](#))

Informative references

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

Junction of roof sheathings to parts extending above the roof with ventilating means	E04D 13/143
Ventilation of roof coverings not otherwise provided for, e.g. ridge or eaves ventilation	E04D 13/17
Ventilation roofing slabs	E04D 3/40
Roof ventilation	F24F 7/02

E04D 13/033

[N: provided with means for controlling the light-transmission or the heat-reflection, (e.g. shields, reflectors, cleaning devices)

Informative references

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

Window shutters	E06B 9/02
Light shafts, e.g. for cellars	E04F 17/06
Window screens affording protection against light	E06B 9/24

Daylight conveying tubular skylights, with skylight shafts	E04D 2013/034 , E04D 2013/0345
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E04D 13/0335

[N: Skylight guards, security devices protecting skylights or preventing objects or persons from falling through skylight openings]

Informative references

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

Safety or protective measures for persons during the construction of buildings	E04G 21/32
Shutters, movable grilles for windows	E06B 9/02
Safety measure against unauthorised opening of windows	E06B 9/80

E04D 13/035

characterised by having movable parts [N: (preventing the spread of fire [A62C 3/00](#); roof structures with movable roof parts [E04B 7/16](#); operating mechanisms for sky-lights [E05F 11/00](#); automatically acting closers [E05F 17/00](#) ; preventing the spread of fire)]

Informative references

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

Preventing the spread of fire	A62C 3/00
Roof structures with movable roof parts	E04B 7/16
Operating mechanisms for sky-lights	E05F 11/00
Automatically acting closers	E05F 17/00

Devices triggered by fire, excessive heat or smoke	R24F209/68
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E04D 13/04

Roof drainage; Drainage fittings in flat roofs, balconies or the like [N: balconies or the like] (gutter tiles [E04D 1/30](#); gutter slabs [E04D 3/40](#); [N: vessels for collecting rainwater [E03B 3/03](#)]; street gullies [E03F 5/04](#))

Definition statement

This subclass/group covers:

Drainage in or on the field of the roof, drainage fittings in flat roofs, balconies or the like ([E04D 13/04](#) to [E04D 13/0481](#)) .

Roof gutters, down pipes and accessories therefor ([E04D 13/064](#) to [E04D 13/08](#))

Informative references

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

Vessels for collecting rainwater	E03B 3/03
Street gullies	E03F 5/04
Gutter tiles	E04D 1/30
Gutter slabs	E04D 3/40

E04D 13/0409

[N: Drainage outlets, e.g. gullies]

Informative references

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

Street gullies	E03F 5/04
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E04D 13/0445

[N: Drainage channels]

Definition statement

This subclass/group covers:

Gutters in or on the roof surface for draining water, e.g. inclined valley gutters

E04D 13/0459

[N: Drainage borders, e.g. dripping edges, gravel stops or dispersers]

Informative references

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

Trimming strips; Edge strips; Fascias	E04D 13/15
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E04D 13/0477

[N: Underroof drainage layers (layers permitting turfing of the roof [E04D 11/002](#))]

Informative references

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

Layers permitting turfing of the roof	E04D 11/002
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E04D 13/064

Gutters

Definition statement

This subclass/group covers:

Roof gutters around the borders of sloping roofs

References relevant to classification in this group

This subclass/group does not cover:

Drainage channels on the roof surface, e.g. inclined valley gutters	E04D 13/0445
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Informative references

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

Gutters for greenhouses	A01G 9/1476
Apparatus or tools for roof working	E04D 15/00

E04D 13/068

Means for fastening gutter parts together

Informative references

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

Apparatus or tools for roof working; for handling roofing material in roll form	E04D 15/00 ; E04D 15/06
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E04D 13/072

Hanging means (in combination with means for fastening gutter parts together [N: [E04D 13/0685](#)])

Definition statement

This subclass/group covers:

Hanging means for roof gutters

References relevant to classification in this group

This subclass/group does not cover:

Hanging means in combination with means for fastening gutter parts together	E04D 13/0685
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E04D 13/076

Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof

Informative references

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

Apparatus or tools for roof working	E04D 15/00
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Special rules of classification within this group

Devices for mechanically removing snow from gutters are classified in [E04D 13/076](#)

E04D 13/0762

[N: De-icing devices]

Definition statement

This subclass/group covers:

De-icing devices and snow melters for gutters

References relevant to classification in this group

This subclass/group does not cover:

Devices for mechanically removing snow from gutters	E04D 13/076
Snow melters for roofs	E04D 13/103
De-icing devices for roof gullies	E04D 2013/0418
De-icing devices for down pipes	E04D 2013/088

Informative references

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

De-icing of aircraft exteriors	B64D 15/00
De-icing of aerials	H01Q 1/02
De-icing of electric lines	H02G 7/16

E04D 13/0765

[N: Cleaning tools]

Definition statement

This subclass/group covers:
Cleaning tools for roof gutters

References relevant to classification in this group

This subclass/group does not cover:

Devices for mechanically removing snow from gutters	E04D 13/076
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Informative references

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

Brushes in general	A46B
Cleaning devices in general	B08B

E04D 13/0767

[N: Strainers at connection between gutter and down pipe]

Informative references

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

Strainers for roof drainage outlets, e.g. gullies	E04D 2013/0413
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E04D 13/08

Down pipes; Special clamping means therefor (clamping pipes in general [F16B](#), [F16L](#))

Definition statement

This subclass/group covers:

Down pipes for roof gutters, and clamping means therefor

Informative references

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

Clamping pipes in general	F16B , F16L
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E04D 13/103

[N: Snow melters (for drainage outlets [E04D 13/0409](#), for gutters [E04D 13/0762](#), for down pipes [E04D 13/08](#))]

Definition statement

This subclass/group covers:

Snow melters and de-icing devices on the roof surface

References relevant to classification in this group

This subclass/group does not cover:

De-icing devices and snow melters for gutters	E04D 13/0762
De-icing devices and snow melters for down pipes	E04D 2013/088
De-icing devices and snow melters for roof gullies	E04D 2013/0418

Informative references

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

De-icing of aircraft exteriors	B64D 15/00
De-icing of aerials	H01Q 1/02
De-icing of electric lines	H02G 7/16
Methods for preventing ice formation	E01C 11/245

on roads	
Embedded electrical heating elements in road surfaces	E01C 11/265

E04D 13/12

Devices or arrangements allowing walking on the roof or in the gutter

Definition statement

This subclass/group covers:

Permanent installation on flat and inclined roofs allowing walking

References relevant to classification in this group

This subclass/group does not cover:

Terraces on flat roofs; elevated terraces on flat roofs	E04D 11/00 ; E04D 11/005
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Informative references

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

Means for working on roofs, during the construction	E04G 21/3214
Arrangements on buildings for connecting safety-lines, during the construction	E04G 21/3261
Step tiles	E04D 2001/308

E04D 13/14

Junction of roof sheathings to chimneys or other parts extending above the roof

Informative references

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

Internal channels, e.g. chimneys, air-ducts	E04F 17/00
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E04D 13/1415

[N: Junctions to walls extending above the perimeter of the roof (trimming strips, edge strips or fascias retaining the roof sheathing [E04D 13/155](#))]

Informative references

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

Junctions of roof sheathings to parts extending above the roof with ventilating means	E04D 13/143
Junction to walls extending above the perimeter of inclined roofs	E04D 13/1478
Trimming strips, edge strips, or fascias retaining the roof sheathing	E04D 13/155

E04D 13/143

with ventilating means in junctions of roof sheathings to parts extending above the roof

Definition statement

This subclass/group covers:

Junctions of roof sheathings to chimneys or other parts extending above the roof provided with ventilating means

Informative references

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

Junction to walls extending above the perimeter of flat roofs	E04D 13/1415
Junction to walls extending above the perimeter of inclined roofs	E04D 13/1478

E04D 13/147

specialy adapted for inclined roofs [N: trays for cavity walls
[E04B 1/70](#)]

Definition statement

This subclass/group covers:

Junctions of roof sheathings to chimneys or other parts extending above an inclined roof, the junctions being specially adapted for inclined roofs

References relevant to classification in this group

This subclass/group does not cover:

Trays for cavity walls	E04B 1/70
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Special rules of classification within this group

Deformable junction strips which are shaped in situ should be classified here, e.g. junction strips made of a deformable material

E04D 13/1473

[N: specially adapted to the cross-section of the parts extending above the roof]

Definition statement

This subclass/group covers:

Preformed junctions specially adapted for inclined roofs and to the cross-section of the parts extending above the inclined roof

References relevant to classification in this group

This subclass/group does not cover:

Deformable junction strips which are shaped in situ	E04D 13/147
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Special rules of classification within this group

Classify also in [E04D 13/1478](#) when the part extending above the roof has walls, e.g. walls of a chimney made of bricks

E04D 13/15

Trimming strips; Edge strips; Fascias; [N: Expansion joints for roofs (wall copings [E04D 3/405](#); drainage borders [E04D 13/0459](#); joints in general [E04B 1/68](#))];

Definition statement

This subclass/group covers:

Trimming strips for roofs, roof edge strips, elements for covering the overhang at the eave side, e.g. soffits, or the verge of saddle roofs, roof fascias

References relevant to classification in this group

This subclass/group does not cover:

Junctions of roof sheathings to chimneys or other parts, e.g. walls, extending above the roof	E04D 13/14
Wall copings	E04D 3/405

Informative references

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

Joints in general	E04B 1/68
Drainage borders	E04D 13/0459

Special rules of classification within this group

If drainage aspects are present, e.g. weeping holes, classify also in [E04D 13/0459](#), [E04D 13/0459](#)

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Fascias	In a sloped roof, vertical covering part of the cornice, i.e. of the roof eaves
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	overhang
Soffits	In a sloped roof, horizontal covering part of the underside of the cornice, i.e. of the roof eaves overhang
Edge strip	Finishing strip around the border of a roof

E04D 13/152

with ventilating means in soffits or fascias [N: in soffits or fascias; (on the eaves of the roof [E04D 13/178](#))]

Informative references

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

With ventilating means on the eaves of the roof	E04D 13/178
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E04D 13/155

retaining the roof sheathing

Definition statement

This subclass/group covers:

Edge strips or fascias retaining the roof sheathing

References relevant to classification in this group

This subclass/group does not cover:

Junctions of roof sheathings to walls, extending above the perimeter of a flat roof	E04D 13/1415
Junctions of roof sheathings to walls, extending above an inclined roof	E04D 13/1478

E04D 13/158

covering the overhang at the eave side, e.g. soffits, or the verge of saddle roofs

Informative references

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

Ventilating means in soffits or fascias	E04D 13/152
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Special rules of classification within this group

Fascia boards and soffits coverings are classified in [E04D 13/158](#)

E04D 13/1585

[N: covering the verge of saddle roofs (gable tiles [E04D 1/30](#))]

References relevant to classification in this group

This subclass/group does not cover:

Gable tiles	E04D 1/30
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E04D 13/16

Insulating devices or arrangements in so far as the roof covering is concerned, [N: e.g. characterised by the material or composition of the roof insulating material or its integration in the roof structure]

Definition statement

This subclass/group covers:

Insulation of the roof covering integrated in the roof covering structure, e.g. the insulation being positioned above, between or below the roof purlins; insulation for roofs made of corrugated sheets; insulation applied above the roof covering, e.g. inverted roofs; insulation of pre-existing roofs; insulation of roof coverings, the insulation having provisions for roof drainage.

References relevant to classification in this group

This subclass/group does not cover:

Roofing slabs or stiff sheets comprising two or more layers, at least one of the layers being of	E04D 3/351 - E04D 3/355
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insulating material	
Self-supporting roof slabs having insulating properties	E04B 7/22 , E04B 7/225

E04D 13/1606

[N: Insulation of the roof covering characterised by its integration in the roof structure ([E04D 13/1687](#), [E04D 13/17](#) take precedence; self-supporting insulating slabs [E04B7/20A](#), [E04B7/20B2](#))]

Informative references

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

Roof insulation arrangement in which the insulating material has provisions for roof drainage	E04D 13/1687
Ventilation of roof coverings not otherwise provided for	E04D 13/17

E04D 13/1612

[N: the roof structure comprising a supporting framework of roof purlins or rafters ([E04D 13/1668](#) takes precedence)]

Informative references

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

The insulating material being masses or granules applied in situ	E04D 13/1668
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E04D 13/1618

[N: with means for fixing the insulating material between the roof covering and the upper surface of the roof purlins or rafters]

Definition statement

This subclass/group covers:

Roof insulating arrangements in which the insulating material is fixed between the roof covering and the upper surface of the roof purlins or rafters, with or without special fixing means

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Purlins	Battens
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E04D 13/1625

[N: with means for supporting the insulating material between the purlins or rafters (insulating layers disposed between two longitudinal supporting elements [E04B 1/7654](#))]

Definition statement

This subclass/group covers:

Roof insulating arrangements in which the insulating material is supported between the roof purlins or rafters, with or without special fixing means

Informative references

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

Insulating layers disposed between two longitudinal supporting elements	E04B 1/7654
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Purlins	Battens
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E04D 13/1631

[N: the means deriving from the nature or the shape of the insulating material itself]

Definition statement

This subclass/group covers:

Roof insulating arrangements in which the insulating material is supported between the roof purlins or rafters, by means deriving from the nature or the shape of the insulating material itself, e.g. expanding insulation.

E04D 13/1643

[N: the roof structure being formed by load bearing corrugated sheets, e.g. profiled sheet metal roofs ([E04D 13/1668](#) and [E04D 13/1681](#) take precedence)]

Definition statement

This subclass/group covers:

Roof insulating arrangements in which the insulating material is supported by load bearing corrugated sheets, e.g. profiled sheet metal roofs

Informative references

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

The insulating material being masses or granules applied in situ	E04D 13/1668
Insulating of pre-existing roofs with or without ventilating arrangements	E04D 13/1681

E04D 13/165

[N: Double skin roofs]

Definition statement

This subclass/group covers:

Insulation for roof coverings comprising a double skin, i.e. two superposed water tight layers

Informative references

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

Roofing slabs comprising two or more layers	E04D 3/35
Fastening means for double roof	E04D 3/3608

covering or over-roofing	
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E04D 13/1662

[N: Inverted roofs or exteriorly insulated roofs ([E04D 13/1681](#) and [E04D 13/1687](#) take precedence)]

Definition statement

This subclass/group covers:

Inverted roofs or exteriorly insulated roofs, e.g. in which the insulation is exposed to the weather

Informative references

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

Insulating of pre-existing roofs with or without ventilating arrangements	E04D 13/1681
The insulating material having provisions for roof drainage	E04D 13/1687
Fastening means for double roof covering or over-roofing	E04D 3/3608

E04D 13/1681

[N: Insulating of pre-existing roofs with or without ventilating arrangements ([E04D 13/1637](#) and [E04D 13/1668](#) take precedence)]

Informative references

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

The insulating material being masses or granules applied in situ	E04D 13/1668
The roof purlins or rafters being mainly insulated from the interior	E04D 13/1637

E04D 13/1693

[N: the upper surface of the insulating material forming an inclined surface]

Definition statement

This subclass/group covers:

Roof insulating arrangements in which the upper surface of the insulating material forms an inclined surface, e.g. sloped insulating elements on a flat roof

E04D 13/17

Ventilation of roof coverings not otherwise provided for (ventilation of rooms or spaces [F24F](#))

Definition statement

This subclass/group covers:

Ventilation of the spaces between the roof covering and the roof structure

References relevant to classification in this group

This subclass/group does not cover:

Roof ventilation, i.e. ventilation of spaces or rooms located below the roof supporting structure	F24F 7/02
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Informative references

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

Ventilation tiles	E04D 1/30
Ventilation roofing slabs	E04D 3/40
Internal channels, e.g. chimneys, air-ducts	E04F 17/00
Ventilation of rooms or spaces, in general	F24F

E04D 13/172

[N: Roof insulating material with provisions for or being arranged for permitting ventilation of the roof covering ([E04D 13/165](#), [E04D 13/1687](#) take precedence)]

Definition statement

This subclass/group covers:

Ventilation of roof coverings provided through roof insulating material having provisions for or being arranged for permitting ventilation of the roof covering, e.g. insulation so arranged that it provides ventilation gaps

Informative references

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

Double skin roofs	E04D 13/165
Insulated roofs in which the insulating material has provisions for roof drainage	E04D 13/1687

E04D 13/174

[N: on the ridge of the roof]

Definition statement

This subclass/group covers:

Ventilation of roof coverings provided through ventilating means located on the ridge of the roof

Informative references

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

Roof ridge slabs or sheets	E04D 3/40
Ridge tiles	E04D 2001/305

E04D 13/178

[N: on the eaves of the roof]

Definition statement

This subclass/group covers:

Ventilation of roof coverings provided through ventilating means located on the eaves of the roof

Informative references

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

Protection against birds, mice, or the like	E04D 13/004
Ventilating means in soffits or fascias	E04D 13/152

E04D 15/00

Apparatus or tools for roof working

Definition statement

This subclass/group covers:

Apparatus or tools for removing roof material, for cleaning the roof, for building roof coverings comprising tiles, shingles or the like, for building roof coverings comprising slabs, sheets or flexible material for handling, during construction of the roof covering, roofing or sealing material in roll or bulk form

References relevant to classification in this group

This subclass/group does not cover:

Devices for removing snow, ice or debris from gutters	E04D 13/076
De-icing devices for gutters	E04D 13/0762
Cleaning tools for gutters	E04D 13/0765
Scaffolds for working on roofs	E04G 3/26

Informative references

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

Ladders	E06C
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Special rules of classification within this group

Use [E04D 15/00](#) to [E04D 15/07](#) to classify additional information

E04D 15/003

[N: for removing roof material (for floor coverings [E04G 23/006](#))]

Informative references

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

Arrangements for removing floor coverings	E04G 23/006
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E04D 15/02

for roof coverings comprising tiles, shingles, or like roofing elements [N: ([E04D 15/003](#) takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Apparatus or tools for removing roof material	E04D 15/003
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Informative references

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

Roof covering by making use of tiles, slates, shingles or other small roofing elements	E04D 1/00 - E04D 1/36
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E04D 15/04

for roof coverings comprising slabs, sheets or flexible material

Informative references

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

Roof covering by making use of flat or curved slabs or stiff sheets	E04D 3/00 - E04D 3/40
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E04D 15/06

for handling roofing or sealing material in roll form

Informative references

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

Roof covering by making use of flexible material, e.g. supplied in roll form	E04D 5/00 - E04D 5/149
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