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 place 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

Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Coverings of outer walls by plaster of other porous material</th>
<th>E04F 13/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer coverings for walls not suitable for roof coverings</td>
<td>E04F 13/007</td>
</tr>
<tr>
<td>Solar heat collectors on roofs</td>
<td>F24S 20/67</td>
</tr>
<tr>
<td>Photovoltaic panels on or for roofs</td>
<td>H02S 20/25</td>
</tr>
</tbody>
</table>

E04D 1/00
Roof covering by making use of tiles, slates, shingles, or other small roofing elements (roofing supports {and underlayers} E04D 12/00)

Definition statement
This place covers:
Small roof covering elements, like grooved or vaulted tiles, slates, shingles (E04D 1/02 - E04D 1/22); Special small roof covering elements characterized by their structure or their purpose (E04D 1/24 - E04D 1/30); Fastenings for small roof covering elements and devices for sealing the spaces between small roof covering elements (E04D 1/34 - E04D 1/365).

References

Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Roofing supports and under-layers</th>
<th>E04D 12/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer covering for walls not suitable for roof covering</td>
<td>E04F 13/007</td>
</tr>
<tr>
<td>Solar heat collectors in the form of shingles or tiles</td>
<td>F24S 20/69</td>
</tr>
<tr>
<td>Roof tile elements including solar cells</td>
<td>H02S 20/23</td>
</tr>
</tbody>
</table>

Special rules of classification
Use E04D 1/00 - 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 place covers:*

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

**References**

**Limiting references**

*This place 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**

Classify in **E04D 1/04 - 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 place covers:*

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

**References**

**Limiting references**

*This place 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**

Classify in **E04D 1/14 - 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 place covers:
Small roof covering elements having internal cavities in the thickness of the roof covering elements, e.g. hollow tiles

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Roofing elements comprising two or more layers, e.g. for insulation</th>
</tr>
</thead>
</table>

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

Definition statement
This place covers:
Roofing elements comprising two or more layers, the layers having a thickness and not being simple coating layers

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

<table>
<thead>
<tr>
<th>Layered products</th>
</tr>
</thead>
</table>

E04D 1/30
Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles (E04D 3/40, E04D 13/03, E04D 13/14) take precedence

Definition statement
This place 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
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Slabs or sheets locally modified for auxiliary purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sky-lights; domes; ventilating sky-lights</td>
</tr>
<tr>
<td>Junction of roof sheathings to chimneys or other parts extending above the roof</td>
</tr>
</tbody>
</table>
**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**; {channels at the intersection of roof surfaces **E04D 13/0445**})

**Definition statement**

*This place covers:*

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

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Devices for sealing the spaces or joints between roof-covering elements</th>
<th><strong>E04B 1/68</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Channels at the intersection of roof surfaces</td>
<td><strong>E04D 13/0445</strong></td>
</tr>
<tr>
<td>Sealing joints not restricted to roof-covering elements</td>
<td><strong>E04D 1/00</strong></td>
</tr>
</tbody>
</table>

**E04D 3/00**

Roof covering by making use of flat or curved slabs or stiff sheets (**E04D 1/00** takes precedence; built-up roofs **E04D 11/02**)

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Roof covering by making use of tiles, slates shingles, or other small roofing elements</th>
<th><strong>E04D 1/00</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strip-shaped roofing elements appearing as a row of shingles</td>
<td><strong>E04D 1/26</strong></td>
</tr>
<tr>
<td>Roof covering by making use of flexible material, e.g. roofing membranes</td>
<td><strong>E04D 5/00</strong></td>
</tr>
<tr>
<td>Built-up roofs</td>
<td><strong>E04D 11/02</strong></td>
</tr>
<tr>
<td>Roofing supports and under-layers</td>
<td><strong>E04D 12/00</strong></td>
</tr>
<tr>
<td>Sunshades; Awnings</td>
<td><strong>E04F 10/00</strong></td>
</tr>
<tr>
<td>Outer covering for walls not suitable for roof covering</td>
<td><strong>E04F 13/007</strong></td>
</tr>
<tr>
<td>Coverings for buildings of particular purpose, e.g. bus shelters</td>
<td><strong>E04H</strong></td>
</tr>
<tr>
<td>Roof slab elements comprising solar collectors</td>
<td><strong>F24S 20/67</strong></td>
</tr>
<tr>
<td>Roof slab elements comprising solar cells</td>
<td><strong>H02S 20/23</strong></td>
</tr>
</tbody>
</table>

**Special rules of classification**

Use **E04D 3/00** - **E04D 3/405** to classify additional information
**E04D 3/02**

of plane slabs, slates, or sheets, or in which the cross-section is unimportant (E04D 3/35 takes precedence)

**Definition statement**

*This place 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**

*Limiting references*

*This place does not cover:*

| Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation | E04D 3/35 |

**Special rules of classification**

Classify in E04D 3/04 - 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 (of asbestos cement E04D 3/18)

**References**

*Limiting references*

*This place does not cover:*

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

**E04D 3/06**

of glass or other translucent material; Fixing means therefor (fixing glass panes by means applicable to windows E06B 3/54)

**Definition statement**

*This place 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**

*Limiting references*

*This place does not cover:*

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

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>E04D 3/28</td>
</tr>
<tr>
<td>Greenhouses</td>
<td>A01G 9/14</td>
</tr>
<tr>
<td>Loggias</td>
<td>E04B 1/0046</td>
</tr>
<tr>
<td>Curtain walls</td>
<td>E04B 2/88</td>
</tr>
<tr>
<td>Hollow multi-walled translucent panels with integrated webs</td>
<td>E04C 2/543</td>
</tr>
<tr>
<td>Small buildings for limited occupation</td>
<td>E04H 1/12</td>
</tr>
<tr>
<td>Telephone cabinets</td>
<td>E04H 1/14</td>
</tr>
<tr>
<td>Bay windows</td>
<td>E06B 1/363</td>
</tr>
<tr>
<td>Windows</td>
<td>E06B 3/00</td>
</tr>
</tbody>
</table>

**Special rules of classification**

Classify in **E04D 3/08** - **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**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>constructions of roof intersections or hipped ends</td>
<td>E04B 7/06, E04B 7/063</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>details of the cross-sections of metallic profiles</td>
<td>E04C 2003/0404</td>
</tr>
</tbody>
</table>
**E04D 3/24**

with special cross-section, e.g. with corrugations on both sides, with ribs, flanges, or the like (E04D 3/35 takes precedence)

**Definition statement**

*This place 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**

**Limiting references**

*This place does not cover:*

| Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation | E04D 3/35 |

**Special rules of classification**

Classify in E04D 3/26 - E04D 3/34 if the materials of the roofing elements are specified and in E04D 3/24 if they are not.

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**E04D 3/28**

of glass {or other translucent material}

**Definition statement**

*This place 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.

**References**

**Informative references**

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

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

**Special rules of classification**

When glazing bars are present classify also in E04D 3/08 - E04D 3/14

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**E04D 3/30**

of metal

**Special rules of classification**

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
{(self-supporting roofing slabs laminated with layers of insulating material
E04B 7/22; insulating devices or arrangements in the roof covering E04D 13/16;
connecting, fastening of double roof covering E04D 3/3608)}

**Definition statement**

This place 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**

**Limiting references**

This place does not cover:

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

**Informative references**

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

<table>
<thead>
<tr>
<th>Layered products</th>
<th>B32B</th>
</tr>
</thead>
</table>

**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.

**E04D 3/36**

Connecting; Fastening

**Definition statement**

This place 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.
References

Informative references

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

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

Special rules of classification

Fastening means of roofing slabs or stiff sheets, in their fields, to the underlying roof structure are classified in groups E04D 3/3601 - 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 - E04D 3/369.

Connecting means between adjacent roofing slabs or stiff sheets are classified in groups E04D 3/361 - E04D 3/369.

In groups E04D 3/361 - 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 an insulating layer (E04D 3/3607, E04D 3/3608, E04D 3/361 - E04D 3/369 take precedence))

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Fastening means comprising spacer means adapted to the shape of the profiled roof covering</th>
<th>E04D 3/3607</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastening means for double roof covering or over-roofing</td>
<td>E04D 3/3608</td>
</tr>
<tr>
<td>Connecting means between adjacent roofing slabs</td>
<td>E04D 3/361 - E04D 3/369</td>
</tr>
</tbody>
</table>
E04D 3/3603
{the fastening means being screws or nails}

References

Informative references

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

<table>
<thead>
<tr>
<th>Apparatus or tools for roof working, for roof coverings comprising slabs or stiff sheets</th>
<th>E04D 15/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparatus or tools for fixing roofing slabs or stiff sheets to the roof structure, by nailing, by screwing</td>
<td>E04D 2015/042, E04D 2015/045, E04D 2015/047</td>
</tr>
</tbody>
</table>

E04D 3/3605
{of roof covering supported directly by the roof structure (E04D 3/3607, E04D 3/3608, E04D 3/361 - E04D 3/369 take precedence)}

References

Limiting references

This place 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 - E04D 3/369 |

E04D 3/3606
{the fastening means being screws or nails}

References

Informative references

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

<table>
<thead>
<tr>
<th>Apparatus or tools for roof working, for roof coverings comprising slabs or stiff sheets</th>
<th>E04D 15/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparatus or tools for fixing roofing slabs or stiff sheets to the roof structure, by nailing, by screwing</td>
<td>E04D 2015/042, E04D 2015/045, E04D 2015/047</td>
</tr>
</tbody>
</table>
E04D 3/3607
{the fastening means comprising spacer means adapted to the shape of the profiled roof covering}

Definition statement
This place 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 overroofing}

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

<table>
<thead>
<tr>
<th>Inverted roofs</th>
<th>E04D 13/1662</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulating of pre-existing roofs</td>
<td>E04D 13/1681</td>
</tr>
</tbody>
</table>

E04D 3/361
by specially-profiled marginal portions of the slabs or sheets

Definition statement
This place 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.

References
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 | E16B 5/00; F16B 5/0004 |

Special rules of classification
Use E04D 3/36 - 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 place, 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 |

---

**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 place 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**

*Limiting references*

*This place 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 |

**Informative references**

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

| With snap action | E04D 3/363 |

**Special rules of classification**

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 place, 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 |
E04D 3/363

with snap action (E04D 3/366 takes precedence)

Definition statement

This place 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

Limiting references

This place does not cover:

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

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

Special rules of classification

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 place 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

Limiting references

This place does not cover:

By forcing together the marginal portions of adjacent slabs or sheets, e.g. crimping, clamping
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 place 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**

**Limiting references**

*This place does not cover:*

Connecting by means of standing seams E04D1/361 - E04D1/364

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 |

**Special rules of classification**

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 place, 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 |
**E04D 3/366**

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

**Definition statement**

*This place 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**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Bridging elements forcing, e.g. crimping or clamping, the marginal portions of adjacent slabs or sheets</th>
<th>E04D 3/366</th>
</tr>
</thead>
</table>

**Informative references**

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

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

**Special rules of classification**

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

| Bulge | separate bridging element |
**E04D 3/368**

by forcing together the marginal portions of adjacent slabs or sheets

**Definition statement**

*This place 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**

**Limiting references**

*This place does not cover:*

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

**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
- Connecting metallic sheets by folding

---

**E04D 3/369**

by welding of the marginal portions of adjacent slabs or sheets (also by soldering, glueing)

**References**

**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
- Resistance welding of metals
- Welding of plastics
E04D 3/38

Devices for sealing spaces or joints between roof-covering elements

\(\text{(E04D 3/36 takes precedence; sealing joints not restricted to roof-covering elements E04B 1/68)}\)

References

Limiting references

This place does not cover:

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

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices for sealing the spaces or joints between small roof-covering elements, ridge sealing</td>
<td>E04D 1/36</td>
</tr>
</tbody>
</table>

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

\(\{(\text{E04D 13/15 and E04D 13/174 take precedence; ridge sealing E04D 1/36; solar collectors F24S 20/67; photovoltaic devices H01L 31/00})\}\)

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridge sealing</td>
<td>E04D 1/36</td>
</tr>
<tr>
<td>Gutters</td>
<td>E04D 13/064</td>
</tr>
<tr>
<td>Trimming strips; edge strips; fascias</td>
<td>E04D 13/15</td>
</tr>
<tr>
<td>Ventilation of roof coverings, on the ridge of the roof</td>
<td>E04D 13/174</td>
</tr>
<tr>
<td>Solar collectors on roofs</td>
<td>F24S 20/67</td>
</tr>
<tr>
<td>Photovoltaic devices on roofs</td>
<td>H02S 20/23</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage of the roof surface</td>
<td>E04D 13/04</td>
</tr>
</tbody>
</table>
E04D 3/405

{Wall copings}

References

Informative references

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

<table>
<thead>
<tr>
<th>Top wall-plates</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04C 1/39</td>
</tr>
</tbody>
</table>

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; granulated roof covering E04D 7/005; built-up roofs E04D 11/02)

Definition statement

This place covers:

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

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Roof covering using stiff sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 3/00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gravelling of flat roofs; roof covering exclusively consisting of sealing masses applied in situ</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 7/00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Granulated roof covering</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 7/005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Built-up roofs</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 11/02</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Apparatus or tools for roof working, for roof coverings comprising flexible material</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 15/04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Apparatus or tools for handling roofing or sealing material in roll form</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04D 15/06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layered products</th>
</tr>
</thead>
<tbody>
<tr>
<td>B32B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roofing felt</th>
</tr>
</thead>
<tbody>
<tr>
<td>D06N 5/00</td>
</tr>
</tbody>
</table>

Special rules of classification

Use E04D 5/00 - E04D 5/149 to classify the additional information
E04D 5/02

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

Definition statement

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

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of compounded or laminated materials, e.g.</td>
<td>E04D 5/10</td>
</tr>
<tr>
<td>metal foils or plastic films coated with bitumen</td>
<td></td>
</tr>
<tr>
<td>Roof covering by making use of flexible material specially modified, e.g.</td>
<td>E04D 5/12</td>
</tr>
<tr>
<td>perforated, with granulated surface, with attached pads</td>
<td></td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofing felt</td>
<td>D06N 5/00</td>
</tr>
</tbody>
</table>

E04D 5/04

by making use of metal foils

Definition statement

This place covers:
Roof covering by making use of flexible metal foils, like flexible metal foils supplied in roll form

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of compounded or laminated materials, e.g.</td>
<td>E04D 5/10</td>
</tr>
<tr>
<td>metal foils or plastic films coated with bitumen</td>
<td></td>
</tr>
<tr>
<td>Roof covering by making use of flexible material specially modified, e.g.</td>
<td>E04D 5/12</td>
</tr>
<tr>
<td>perforated, with granulated surface, with attached pads</td>
<td></td>
</tr>
</tbody>
</table>

E04D 5/06

by making use of plastics

Definition statement

This place covers:
Roof covering by making use of flexible sheets, membranes or foils of plastics, like plastic sheets supplied in roll form
**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen</td>
<td>E04D 5/10</td>
</tr>
<tr>
<td>Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads</td>
<td>E04D 5/12</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing foils from plastics or substances in a plastic state</td>
<td>B29D 7/00, C08J 5/18</td>
</tr>
</tbody>
</table>

**Special rules of classification**

Asphalt or bitumen are not considered plastics in E04D 5/06

**E04D 5/08**

**by making use of other materials**

**Definition statement**

*This place covers:*

Roof covering by making use of flexible foils, sheets or membranes consisting of materials not covered by groups E04D 5/02 - E04D 5/06

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen</td>
<td>E04D 5/10</td>
</tr>
<tr>
<td>Roof covering by making use of flexible material specially modified, e.g. perforated, with granulated surface, with attached pads</td>
<td>E04D 5/12</td>
</tr>
</tbody>
</table>

**E04D 5/10**

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

**Definition statement**

*This place 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

Limiting references

This place 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 |

Informative references

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

| Layered products | B32B |

Special rules of classification

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.

Glossary of terms

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

| Compounded materials | Combination of materials, except flexible roofing materials impregnated with sealing substances |

E04D 5/12

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

Definition statement

This place covers:

Roof covering by making use of specially modified flexible foils, sheets or membranes, like flexible foils, sheets or membranes having features that are not continuous in both length and/or width directions, e.g. perforated membranes, or having a surface that is not smooth, e.g. a granulated surface, or having attached pads

References

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 |

E04D 5/14

Fastening means therefor

Definition statement

This place covers:

Fastening means for roof coverings comprising flexible materials
### References

#### Informative references

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

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

#### E04D 5/144

**{Mechanical fastening means}**

#### Definition statement

*This place covers:*

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

#### References

##### Limiting references

*This place does not cover:*

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical fasteners per se, e.g. nails, bolts, screws, discs, clips, if not specially adapted or indicated as fastening means for flexible roof covering material</td>
<td>F16B</td>
</tr>
</tbody>
</table>

##### Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparatus for fixing a flexible material to the roof supporting structure, by nailing, by screwing</td>
<td>E04D 2015/042, E04D 2015/045, E04D 2015/047</td>
</tr>
</tbody>
</table>

#### E04D 5/145

**{Discrete fastening means, e.g. discs or clips}**

#### References

##### Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastening of roofing slabs or stiff sheets to the roof structure, the fastening means being screws or nails</td>
<td>E04D 3/3603, E04D 3/3606</td>
</tr>
</tbody>
</table>
E04D 5/147
{not perforating the flexible material}

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Fastening by gluing</th>
<th>E04D 5/148</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastening by welding</td>
<td>E04D 5/149</td>
</tr>
</tbody>
</table>

E04D 5/148
{fastening by gluing}

Definition statement

This place covers:
Fastening of flexible roof covering material by making use of glue or adhesive

References

Informative references

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

<table>
<thead>
<tr>
<th>Tools for applying glue in general</th>
<th>B05C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joining sheets or webs of paper, cardboard, metal foil or plastic by adhesives</td>
<td>B29C 65/00, B65H 21/00</td>
</tr>
<tr>
<td>Gluing of plastics</td>
<td>B29C 65/48</td>
</tr>
<tr>
<td>Adhesive films or foils</td>
<td>C09H 9/02</td>
</tr>
<tr>
<td>Adhesives</td>
<td>C09J</td>
</tr>
<tr>
<td>Attachment devices using adhesives</td>
<td>F16B 47/00</td>
</tr>
</tbody>
</table>

E04D 5/149
{fastening by welding}

Definition statement

This place covers:
Fastening of flexible roof covering material by welding

References

Informative references

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

<table>
<thead>
<tr>
<th>Soldering, welding of metal</th>
<th>B23K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welding of plastics</td>
<td>B29C 65/00</td>
</tr>
</tbody>
</table>
**E04D 7/00**

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

**Definition statement**

This place 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

**References**

**Informative references**

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

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

**E04D 7/005**

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

**Definition statement**

This place covers:

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

**References**

**Limiting references**

This place does not cover:

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

**E04D 9/00**

Roof covering by using straw, thatch, or like materials (impregnation against incendiary damage **B27K**)

**References**

**Informative references**

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

| Impregnation against incendiary damage | B27K |
E04D 11/00

Roof covering, as far as not restricted to features covered by only one of groups E04D 1/00 - E04D 9/00; Roof covering in ways not provided for by groups E04D 1/00 - E04D 9/00, {e.g. built-up roofs, elevated load-supporting roof coverings}

References

References out of a residual place

Examples of places in relation to which this place is residual:

| Supports for elevated load-supporting roof coverings | E04D 11/005 |

Special rules of classification

Use E04D 11/00 - 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

Limiting references

This place does not cover:

| Turfing tiles | E04D 2001/308 |

Informative references

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

| Growing turf | A01G 20/00 |

E04D 11/005

{Supports for elevated load-supporting roof coverings}

Definition statement

This place covers:

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

References

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

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 (gravelling of flat roofs E04D 7/00; venting or ventilation E04D 13/17)

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Gravelling of flat roofs</th>
<th>E04D 7/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venting or ventilation of roof coverings</td>
<td>E04D 13/17</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Roof covering by making use of flexible material, e.g. supplied in roll form</th>
<th>E04D 5/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof underlay membranes</td>
<td>E04D 12/002</td>
</tr>
</tbody>
</table>

Special rules of classification

Roof covering consisting of only one layer of flexible material should be classified in E04D 5/00 - 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 (E04D 11/02 and E04D 13/16) take precedence; {self-supporting slabs with non-structural supports for roofing materials E04B 7/205})

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Built-up roofs</th>
<th>E04D 11/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering insulation</td>
<td>E04D 13/16</td>
</tr>
<tr>
<td>Roof constructions consisting of a plurality of parallel similar trusses supporting load-bearing purlins</td>
<td>E04B 7/024</td>
</tr>
<tr>
<td>Self-supporting slabs with non-structural supports for roofing materials</td>
<td>E04B 7/205; E04B 7/225</td>
</tr>
</tbody>
</table>
Special rules of classification

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 - E04D 12/008 to classify additional information.

Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof batten or roof purlin</td>
<td>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.</td>
</tr>
</tbody>
</table>

E04D 12/002

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

Definition statement

This place covers:

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

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Term</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of flexible material</td>
<td>E04D 5/00</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture of semi-permeable membranes</td>
<td>B061D67/00 - B01D 71/00</td>
</tr>
<tr>
<td>House wraps, i.e. air or moisture barrier sheets or foils</td>
<td>E04B 1/625</td>
</tr>
</tbody>
</table>

E04D 12/004

{Battens}

Definition statement

This place covers:

Battens for supporting roof covering elements as defined in groups E04D 1/00 - E04D 3/40, i.e. small roof covering elements, roofing slabs or stiff sheets.
References

Limiting references

This place does not cover:

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

Special rules of classification

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

E04D 12/008

{Ridge-batten brackets}

Definition statement

This place covers:
Specially adapted brackets to support the ridge-batten

E04D 13/00

Special arrangements or devices in connection with roof coverings; {Protection against birds}; Roof drainage; {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 place covers:
Provisions against atmospheric, e.g. wind vortex suppression, vegetal or animal influences on roofs (E04D 13/002 - E04D 13/008); Sky-lights, domes and roof covering aspects thereof (E04D 13/02 - E04D 13/0358); Roof drainage, roof gutters, down pipes (E04D 13/04 - 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 - E04D 13/1585); Insulating devices for the roof covering (E04D 13/16 - E04D 13/1693); Ventilation of roof coverings (E04D 13/17 - E04D 13/178)

References

Limiting references

This place does not cover:

| Ventilation tiles | E04D 1/30 |
Solar collectors on roofs, \( \text{F24S 20/67} \)
Photovoltaic devices on roofs, e.g. solar cells, \( \text{H02S 20/00} \)

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation roofing slabs</td>
<td>E04D 3/40</td>
</tr>
<tr>
<td>Apparatus or tools for roof working</td>
<td>E04D 15/00</td>
</tr>
<tr>
<td>Internal channels, e.g. drainage channels, chimneys, air-ducts</td>
<td>E04F 17/00</td>
</tr>
</tbody>
</table>

**E04D 13/002**

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

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biocides, plant growth regulators</td>
<td>A01N 25/00- A01N 65/00</td>
</tr>
</tbody>
</table>

**E04D 13/004**

{Protection against birds, mice or the like (scaring devices for birds in general A01M 29/00)}

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation on the eaves of the roof</td>
<td>E04D 13/178</td>
</tr>
<tr>
<td>Scaring devices for birds in general</td>
<td>A01M 29/00</td>
</tr>
<tr>
<td>Biocides, pest repellants or attractants</td>
<td>A01N 25/00- A01N 65/00</td>
</tr>
</tbody>
</table>

**E04D 13/02**

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

**Definition statement**

This place covers:

Sealing between the structure of dormer windows and the roof covering
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>E04D 13/02 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering aspects of sky-lights</td>
<td>E04D 13/03</td>
</tr>
<tr>
<td>Junctions of roof sheathings to chimneys or other parts extending above the roof</td>
<td>E04D 13/14</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>E04D 13/02 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures for dormer windows</td>
<td>E04B 7/18</td>
</tr>
</tbody>
</table>

Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dormer window</td>
<td>Roof window set in a structure that is protruding from the surface of a sloping roof; the window itself is substantially vertical</td>
</tr>
</tbody>
</table>

E04D 13/03

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

Definition statement

This place 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

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>E04D 13/02 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junctions of roof sheathings to chimneys or other parts extending above the roof</td>
<td>E04D 13/14</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>E04D 13/02 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof covering by making use of plane slabs of glass or translucent material</td>
<td>E04D 3/06</td>
</tr>
<tr>
<td>Roof covering by making use of slabs having a special cross-section and made of glass or other translucent material</td>
<td>E04D 3/28</td>
</tr>
<tr>
<td>Saw-tooth roofs with light-transmission</td>
<td>E04B 7/12</td>
</tr>
<tr>
<td>Structures for dormer windows</td>
<td>E04B 7/18</td>
</tr>
</tbody>
</table>
Glossary of terms

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

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

E04D 13/031

(characterised by a frame for connection to an inclined roof)

Definition statement

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

References

Limiting references

This place does not cover:
Sky-lights or domes having a curb frame installed in the plane of a sloping roof

E04D 13/0315

(characterised by a curb frame)

Definition statement

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb frame</td>
<td>Raised frame, i.e. a frame that raises from the surface of the roof</td>
</tr>
</tbody>
</table>

Synonyms and Keywords

Curb  Kerb
**E04D 13/032**

{Supports or connecting means for sky-lights of vaulted shape}

**Definition statement**

>This place 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**

{provided with ventilating means (roof ventilation F24F 7/02)}

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Reference Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation roofing slabs</td>
<td>E04D 3/40</td>
</tr>
<tr>
<td>Junction of roof sheathings to parts extending above the roof with ventilating means</td>
<td>E04D 13/143</td>
</tr>
<tr>
<td>Ventilation of roof coverings not otherwise provided for, e.g. ridge or eaves ventilation</td>
<td>E04D 13/17</td>
</tr>
<tr>
<td>Roof ventilation</td>
<td>F24F 7/02</td>
</tr>
</tbody>
</table>

**E04D 13/033**

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

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Reference Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daylight conveying tubular skylights, with skylight shafts</td>
<td>E04D 2013/034, E04D 2013/0345</td>
</tr>
<tr>
<td>Light shafts, e.g. for cellars</td>
<td>E04F 17/06</td>
</tr>
<tr>
<td>Window shutters</td>
<td>E06B 9/02</td>
</tr>
<tr>
<td>Window screens affording protection against light</td>
<td>E06B 9/24</td>
</tr>
</tbody>
</table>
E04D 13/0335
{Skylight guards, security devices protecting skylights or preventing objects or persons from falling through skylight openings}

References

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 {(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)}

Definition statement
This place covers:
Sky-lights or domes having movable parts for opening and/or closing, e.g. for ventilation or for preventing the spread of fire

References

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 | F24F 11/33 |

E04D 13/04
Roof drainage; Drainage fittings in flat roofs, {balconies or the like} (gutter tiles E04D 1/30; gutter slabs E04D 3/40; {vessels for collecting rainwater E03B 3/03;} street gullies E03F 5/04)

Definition statement
This place covers:
Drainage in or on the field of the roof, drainage fittings in flat roofs, balconies or the like (E04D 13/04 - E04D 13/0481).

Roof gutters, down pipes and accessories therefor (E04D 13/064 - E04D 13/08)
References

Informative references

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

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

E04D 13/0409

{Drainage outlets, e.g. gullies}

Definition statement

This place covers:

Drainage devices located in or on the roof surface or its perimeter for receiving water from the roof surface before it reaches the ground, the devices having limited extension and being only located at specific locations in or on the roof surface or its perimeter, e.g. roof gullies

References

Informative references

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

| Street gullies               | E03F 5/04 |

E04D 13/0445

{Drainage channels}

Definition statement

This place covers:

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

E04D 13/0459

{Drainage borders, e.g. dripping edges, gravel stops or dispersers}

References

Informative references

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

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

{Underroof drainage layers (layers permitting turfing of the roof E04D 11/002)}

**Definition statement**

*This place covers:*

Drainage layers under the outer surface of the roof, e.g. drainage layer under the tiles of a terrazzo style flat roof

**References**

**Limiting references**

*This place does not cover:*

| roofing tiles flexible underlays | E04D 12/002 |

**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 |

**E04D 13/064**

Gutters {(drainage channels on the roof surface E04D 13/0445; gutters for greenhouses A01G 9/1476)}

**Definition statement**

*This place covers:*

Roof gutters around the borders of sloping roofs

**References**

**Limiting references**

*This place does not cover:*

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

**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 |
| Gutters for greenhouses | A01G 9/1476 |
**E04D 13/068**
Mean for fastening gutter parts together

References

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

| Connections between gutter and down pipe | E04D 13/0645 |

**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 |

**E04D 13/072**
Hanging means (in combination with means for fastening gutter parts together (E04D 13/0685))

Definition statement
This place covers:
Supports connecting gutter to roof

References

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

| Supports connecting gutter to roof in combination with means for fastening gutter parts together | E04D 13/0685 |

**E04D 13/076**
Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof

References

**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 |

**Special rules of classification**
Devices for mechanically removing snow from gutters are classified in E04D 13/076
### E04D 13/0762

**{De-icing devices or snow melters}**

**Definition statement**

*This place covers:*
De-icing devices and snow melters for gutters

**References**

**Limiting references**

*This place does not cover:*

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

**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

**{Cleaning tools}**

**Definition statement**

*This place covers:*
Cleaning tools for roof gutters

**References**

**Limiting references**

*This place does not cover:*

| Devices for mechanically removing snow from gutters | E04D 13/076 |

**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

{Strainers at connection between gutter and down pipe}

References
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 |

E04D 13/08

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

Definition statement
This place covers:
Down pipes for roof gutters, and clamping means therefor

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

| Clamping pipes in general | F16B, F16L |

E04D 13/103

{De-icing devices or snow melters (for drainage outlets E04D 13/0409, for gutters E04D 13/0762, for down pipes E04D 13/08)}

Definition statement
This place covers:
Snow melters and de-icing devices on the roof surface

References
Limiting references
This place does not cover:

| De-icing devices and snow melters for roof gullies | E04D 2013/0418 |
| De-icing devices and snow melters for gutters | E04D 13/0762 |
| De-icing devices and snow melters 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 |
| Methods for preventing ice formation on roads | E01C 11/245 |
E04D 13/103 (continued)

| Embedded electrical heating elements in road surfaces | E01C 11/265 |
| De-icing of aerials | H01Q 1/02 |
| De-icing of electric lines | H02G 7/16 |

**E04D 13/12**

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

**Definition statement**

*This place covers:*
Permanent installation on flat and inclined roofs allowing walking

**References**

*Limiting references*

*This place does not cover:*

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

**Informative references**

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

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

**E04D 13/14**

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

**References**

*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 |
E04D 13/1415

{Junctions to walls extending above the perimeter of the roof (trimming strips, edge strips or fascias retaining the roof sheathing E04D 13/155)}

References

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

References

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

specially adapted for inclined roofs {(trays for cavity walls E04B 1/70)}

Definition statement

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

References

Limiting references

This place does not cover:

Trays for cavity walls | E04B 1/70 |
Special rules of classification
Deformable junction strips which are shaped in situ should be classified here, e.g. junction strips made of a deformable material

E04D 13/1473
{specially adapted to the cross-section of the parts extending above the roof}

Definition statement
This place covers:
Preformed junctions specially adapted for inclined roofs and to the cross-section of the parts extending above the inclined roof

References

Limiting references
This place does not cover:
Deformable junction strips which are shaped in situ

Special rules of classification
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; {Expansion joints for roofs (wall copings E04D 3/405; drainage borders E04D 13/0459; joints in general E04B 1/68)}

Definition statement
This place 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

Limiting references
This place does not cover:
Wall copings
Junctions of roof sheathings to chimneys or other parts, e.g. walls, extending above the roof

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

Drainage borders
Joints in general
Special rules of classification
If drainage aspects are present, e.g. weeping holes, classify also in E04D 13/0459, E04D 13/0459

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fascias</td>
<td>In a sloped roof, vertical covering part of the cornice, i.e. of the roof</td>
</tr>
<tr>
<td></td>
<td>eaves overhang</td>
</tr>
<tr>
<td>Soffits</td>
<td>In a sloped roof, horizontal covering part of the underside of the cornice,</td>
</tr>
<tr>
<td></td>
<td>i.e. of the roof eaves overhang</td>
</tr>
<tr>
<td>Edge strip</td>
<td>Finishing strip around the border of a roof</td>
</tr>
</tbody>
</table>

E04D 13/152

with ventilating means {in soffits or fascias; (on the eaves of the roof
E04D 13/178)}

References

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

E04D 13/155

retaining the roof sheathing

Definition statement
This place covers:
Edge strips or fascias retaining the roof sheathing

References

Limiting references
This place 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

References

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
Special rules of classification

Fascia boards and soffits coverings are classified in E04D 13/158

Glossary of terms

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

<table>
<thead>
<tr>
<th>term</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>verge of saddle roof</td>
<td>the edge of a saddle (gable) roof at the gable wall</td>
</tr>
</tbody>
</table>

E04D 13/1585

{covering the verge of saddle roofs (gable tiles E04D 1/30)}

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>term</th>
<th>classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gable tiles</td>
<td>E04D 1/30</td>
</tr>
</tbody>
</table>

E04D 13/16

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

Definition statement

This place 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

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>term</th>
<th>classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofing slabs or stiff sheets comprising two or more layers, at least one of the layers being of insulating material</td>
<td>E04D 3/351 - E04D 3/355</td>
</tr>
<tr>
<td>Self-supporting roof slabs having insulating properties</td>
<td>E04B 7/22, E04B 7/225</td>
</tr>
</tbody>
</table>
E04D 13/1606
{Insulation of the roof covering characterised by its integration in the roof structure (self-supporting insulating slabs E04B 7/22, E04B 7/225)}

References
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
{the roof structure comprising a supporting framework of roof purlins or rafters}

References
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 |

E04D 13/1618
{with means for fixing the insulating material between the roof covering and the upper surface of the roof purlins or rafters}

Definition statement
This place 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 place, the following terms or expressions are used with the meaning indicated:
Purlins
Battens

E04D 13/1625
{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 place covers:
Roof insulating arrangements in which the insulating material is supported between the roof purlins or rafters, with or without special fixing means
References

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 |

Glossary of terms

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

| Purlins | Battens |

E04D 13/1631

{the means deriving from the nature or the shape of the insulating material itself}

Definition statement

This place 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

{the roof structure being formed by load bearing corrugated sheets, e.g. profiled sheet metal roofs}

Definition statement

This place covers:

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

References

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

{Double skin roofs}

Definition statement

This place covers:

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

Informative references

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

<table>
<thead>
<tr>
<th>Roofing slabs comprising two or more layers</th>
<th>E04D 3/35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastening means for double roof covering or over-roofing</td>
<td>E04D 3/3608</td>
</tr>
</tbody>
</table>

E04D 13/1662

{Inverted roofs or exteriorly insulated roofs}

Definition statement

This place covers:

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

References

Informative references

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

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

E04D 13/1681

{Insulating of pre-existing roofs with or without ventilating arrangements}

References

Informative references

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

<table>
<thead>
<tr>
<th>The roof purlins or rafters being mainly insulated from the interior</th>
<th>E04D 13/1637</th>
</tr>
</thead>
<tbody>
<tr>
<td>The insulating material being masses or granules applied in situ</td>
<td>E04D 13/1668</td>
</tr>
</tbody>
</table>

E04D 13/1693

{the upper surface of the insulating material forming an inclined surface}

Definition statement

This place 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 place covers:

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

**References**

**Limiting references**

This place does not cover:

- Roof ventilation, i.e. ventilation of spaces or rooms located below the roof supporting structure

**Informative references**

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

<table>
<thead>
<tr>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation tiles</td>
</tr>
<tr>
<td>Ventilation roofing slabs</td>
</tr>
<tr>
<td>Internal channels, e.g. chimneys, air-ducts</td>
</tr>
<tr>
<td>Ventilation of rooms or spaces, in general</td>
</tr>
</tbody>
</table>

**E04D 13/172**

{Roof insulating material with provisions for or being arranged for permitting ventilation of the roof covering}

**Definition statement**

This place 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

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double skin roofs</td>
</tr>
<tr>
<td>Insulated roofs in which the insulating material has provisions for roof drainage</td>
</tr>
</tbody>
</table>
E04D 13/174
{on the ridge of the roof}

Definition statement
This place covers:
Ventilation of roof coverings provided through ventilating means located on the ridge of the roof

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

<table>
<thead>
<tr>
<th>Ridge tiles</th>
<th>E04D 2001/305</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof ridge slabs or sheets</td>
<td>E04D 3/40</td>
</tr>
</tbody>
</table>

E04D 13/178
{on the eaves of the roof}

Definition statement
This place covers:
Ventilation of roof coverings provided through ventilating means located on the eaves of the roof

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

<table>
<thead>
<tr>
<th>Protection against birds, mice, or the like</th>
<th>E04D 13/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilating means in soffits or fascias</td>
<td>E04D 13/152</td>
</tr>
</tbody>
</table>

E04D 15/00
Apparatus or tools for roof working

Definition statement
This place covers:
Apparatus or tools for roof working like e.g. 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
Limiting references
This place 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

**Special rules of classification**

Use **E04D 15/00** - **E04D 15/07** to classify additional information

**E04D 15/003**

{for removing roof material (for floor coverings **E04G 23/006**)}

**References**

**Informative references**

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

Arrangements for removing floor coverings | E04G 23/006

**E04D 15/02**

for roof coverings comprising tiles, shingles, or like roofing elements

{(**E04D 15/003** takes precedence)}

**References**

**Limiting references**

*This place does not cover:*

Apparatus or tools for removing roof material | E04D 15/003

**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

**E04D 15/04**

for roof coverings comprising slabs, sheets or flexible material

**Definition statement**

*This place covers:*

Apparatus or tools for handling, removing or applying slabs, sheets or flexible materials to roofs
References

Limiting references

This place does not cover:

| Apparatus for handling roofing or sealing material in roll form | E04D 15/06 |

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 |
| Handling of sheet material | B65H |

E04D 15/06

for handling roofing or sealing material in roll form

References

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 |
| Handling of sheet material | B65H |