

# CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

### BUILDING

#### E04 BUILDING

#### E04D ROOF COVERINGS; SKY-LIGHTS; GUTTERS; ROOF-WORKING TOOLS (coverings of outer walls by plaster or other porous material [E04F 13/00](#))

##### NOTE

In this subclass, the following expression is used with the meaning indicated:

- "roof coverings" includes any similar kind of watertight covering against rain, snow, hail, or the like, for other parts of buildings

##### WARNINGS

- The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">E04D 3/3645</a>	covered by	<a href="#">E04D 3/363</a>
<a href="#">E04D 3/367</a>	covered by	<a href="#">E04D 3/364</a>
<a href="#">E04D 13/18</a>	covered by	<a href="#">F24S 20/67</a> , <a href="#">H02S 20/23</a>

- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<b>1/00</b>	<b>Roof covering by making use of tiles, slates, shingles, or other small roofing elements (roofing supports {and underlayers} <a href="#">E04D 12/00</a>)</b>	<b>1/24</b>	• Roofing elements with cavities, e.g. hollow tiles ( <a href="#">E04D 1/28</a> takes precedence)
<b>2001/005</b>	• {the roofing elements having a granulated surface}	<b>1/26</b>	• Strip-shaped roofing elements appearing as a row of shingles
<b>1/02</b>	• Grooved or vaulted roofing elements ( <a href="#">E04D 1/28</a> , <a href="#">E04D 1/30</a> take precedence)	<b>1/265</b>	• • {the roofing elements being rigid, e.g. made of metal, wood or concrete}
<b>1/025</b>	• • {Diamond shaped and installed in diagonal lines}	<b>1/28</b>	• Roofing elements comprising two or more layers, e.g. for insulation
<b>1/04</b>	• • of ceramics, glass or concrete, with or without reinforcement	<b>1/30</b>	• Special roof-covering elements, e.g. ridge tiles, gutter tiles, gable tiles, ventilation tiles ( <a href="#">E04D 3/40</a> , <a href="#">E04D 13/03</a> , <a href="#">E04D 13/14</a> take precedence)
<b>1/045</b>	• • • {Vaulted roofing elements laid alternately side-up and side-down, e.g. monks and nuns tiles}	<b>2001/301</b>	• • {at roof edges, e.g. intersections with walls}
<b>1/06</b>	• • of metal	<b>2001/302</b>	• • • {Gable tiles}
<b>1/08</b>	• • of plastics; {of asphalt; } of fibrous materials	<b>2001/303</b>	• • • {Eave tiles}
<b>1/085</b>	• • • {of wood}	<b>2001/304</b>	• • {at roof intersections, e.g. valley tiles, ridge tiles}
<b>1/10</b>	• • of specified materials {not covered by any one of groups <a href="#">E04D 1/04</a> - <a href="#">E04D 1/085</a> }, or of combinations of materials, {where at least one is} not covered by any one of groups <a href="#">E04D 1/04</a> - <a href="#">E04D 1/085</a>	<b>2001/305</b>	• • • {Ridge or hip tiles}
<b>1/12</b>	• Roofing elements shaped as plain tiles or shingles, i.e. with flat outer surface ( <a href="#">E04D 1/28</a> , <a href="#">E04D 1/30</a> take precedence)	<b>2001/306</b>	• • • • {Under-ridge tiles}
<b>1/125</b>	• • {Diamond shaped and installed in diagonal lines}	<b>2001/307</b>	• • {for passages in the roof surface}
<b>1/14</b>	• • of slate material, with or without fastening means	<b>2001/308</b>	• • {for special purposes not otherwise provided for, e.g. turfing tiles, step tiles}
<b>1/16</b>	• • of ceramics, glass or concrete, with or without reinforcement	<b>2001/309</b>	• • {Ventilation tiles}
<b>1/18</b>	• • of metal	<b>1/34</b>	• Fastenings for attaching roof-covering elements to the supporting elements
<b>1/20</b>	• • of plastics; {of asphalt; } of fibrous materials	<b>1/3402</b>	• • {for ridge or roofhip tiles}
<b>1/205</b>	• • • {of wood}	<b>1/3405</b>	• • {for eaves -, valley - or verge tiles}
<b>1/22</b>	• • of specified materials {not covered by any one of groups <a href="#">E04D 1/14</a> - <a href="#">E04D 1/205</a> }, or of combinations of materials, {where at least one is} not covered by any one of groups <a href="#">E04D 1/14</a> - <a href="#">E04D 1/205</a>	<b>2001/3408</b>	• • {characterised by the fastener type or material}
		<b>2001/3411</b>	• • • {Metal wires or rods}
		<b>2001/3414</b>	• • • {Metal strips or sheet metal}
		<b>2001/3417</b>	• • • {Synthetic, composite or molded material}
		<b>2001/342</b>	• • • {Flexible filamentous ties, e.g. to be twisted or forming nets}
		<b>2001/3423</b>	• • • {Nails, rivets, staples or straps piercing or perforating the roof covering material}
		<b>2001/3426</b>	• • • {Threaded elements, e.g. screws or bolts}

## E04D

2001/3429	. . . {Press-studs elements}	3/06	. . . of glass or other translucent material; Fixing means therefor ( <a href="#">fixing glass panes by means applicable to windows E06B 3/54</a> )
2001/3432	. . . {Strips covering the gap between the roof covering elements}	2003/065	. . . {Corner- or point-supported glazing}
2001/3435	. . . {Adhesive, hardenable or heat-sensitive material}	3/08	. . . with metal glazing bars
2001/3438	. . . {Fasteners comprising several coating elements}	2003/0806	. . . . {the supporting section of the glazing bar consisting of one single extruded or rolled metal part}
2001/3441	. . . {Series of easily separable fasteners}	2003/0812	. . . . {the supporting section of the glazing bar consisting of one single bent or otherwise deformed sheetmetal}
2001/3444	. . {characterised by the roof covering or structure with integral or premounted fastening means}	2003/0818	. . . . {the supporting section of the glazing bar consisting of several parts, e.g. compound sections}
2001/3447	. . . {the fastening means being integral or premounted to the roof covering}	2003/0825	. . . . . {the metal section covered by parts of other material}
2001/345	. . . {the fastening means being integral or premounted to the roof structure}	2003/0831	. . . . . {Glazing gaskets of particular shape}
2001/3452	. . {characterised by the location of the fastening means}	2003/0837	. . . . . {Sections comprising intermediate parts of insulating material}
2001/3455	. . . {on the internal surface of the roof covering elements}	2003/0843	. . . . . {Clamping of the sheets or glass panes to the glazing bars by means of covering strips}
2001/3458	. . . {on the upper or lower transverse edges of the roof covering elements}	2003/085	. . . . . {locked by snap action}
2001/3461	. . . {on the lateral edges of the roof covering elements}	2003/0856	. . . . . {locked by screws, bolts or pins}
2001/3464	. . . {on the lateral corners of the roof covering elements for diagonally tiled roofs}	2003/0862	. . . . . {by means of separate clips or hooks}
2001/3467	. . . {through apertures, holes or slots}	2003/0868	. . . . . {Mutual connections and details of glazing bars}
2001/347	. . {characterised by the fastening pattern}	2003/0875	. . . . . {on the ridge of the roof or on intersecting roof parts}
2001/3473	. . . {fastening single roof elements to the roof structure with or without indirect clamping of neighbouring roof covering elements}	2003/0881	. . . . . {on the eaves of the roof}
2001/3476	. . . {the fastening means taking hold directly on adjacent elements of the same row and fastening them simultaneously to the roof structure}	2003/0887	. . . . . {Glazing bars for coverings consisting of more than one sheet or glass pane}
2001/3479	. . . {the fastening means taking hold directly on adjacent elements of the same row and fastening them only to each other}	2003/0893	. . . . . {Glazing bars comprising means for draining condensation water or infiltrated rainwater}
2001/3482	. . . {the fastening means taking hold directly on elements of succeeding rows and fastening them simultaneously to the structure}	3/14	. . . with glazing bars of other material, e.g. of glass
2001/3485	. . . {the fastening means taking hold directly on elements of succeeding rows and fastening them only to each other}	3/16	. . . of metal
2001/3488	. . {characterised by the type of roof covering elements being fastened}	3/18	. . . of specified materials, or of combinations of materials, not covered by any of groups <a href="#">E04D 3/04</a> , <a href="#">E04D 3/06</a> or <a href="#">E04D 3/16</a>
2001/3491	. . . {made of flexible material, e.g. shingles}	3/24	. . . with special cross-section, e.g. with corrugations on both sides, with ribs, flanges, or the like ( <a href="#">E04D 3/35 takes precedence</a> )
2001/3494	. . . {made of rigid material having a flat external surface}	3/26	. . . of concrete or ceramics
2001/3497	. . . {Spanish type tiles}	3/28	. . . of glass {or other translucent material}
1/36	. Devices for sealing the spaces or joints between roof-covering elements ( <a href="#">sealing joints not restricted to roof-covering elements E04B 1/68</a> ; {channels at the intersection of roof surfaces <a href="#">E04D 13/0445</a> })	2003/285	. . . {with specially profiled marginal portions for connecting purposes}
1/365	. . {Sealing strips between lateral sides of roof-covering elements}	3/30	. . . of metal
3/00	<b>Roof covering by making use of flat or curved slabs or stiff sheets (<a href="#">E04D 1/00 takes precedence</a>; <a href="#">built-up roofs E04D 11/02</a>)</b>	3/32	. . . of plastics, fibrous materials, or asbestos cement
3/02	. . of plane slabs, slates, or sheets, or in which the cross-section is unimportant ( <a href="#">E04D 3/35 takes precedence</a> )	3/34	. . . of specified materials, or of combinations of materials, not covered by any one of groups <a href="#">E04D 3/26</a> - <a href="#">E04D 3/32</a>
3/04	. . . of concrete or ceramics ( <a href="#">of asbestos cement E04D 3/18</a> )	3/35	. . . Roofing slabs or stiff sheets comprising two or more layers, e.g. for insulation {( <a href="#">self-supporting roofing slabs laminated with layers of insulating material E04B 7/22</a> ; <a href="#">insulating devices or arrangements in the roof covering E04D 13/16</a> ; <a href="#">connecting, fastening of double roof covering E04D 3/3608</a> )}
		3/351	. . . {at least one of the layers being composed of insulating material, e.g. fibre or foam material}
		3/352	. . . {at least one insulating layer being located between non-insulating layers, e.g. double skin slabs or sheets}
		3/354	. . . {more than one of the layers being composed of insulating material}

3/355	. . . {the insulating layers of adjacent slabs having cooperating edges}	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 {(E04D 13/15 and E04D 13/174 take precedence; ridge sealing E04D 1/36; solar collectors F24S 20/67; photovoltaic devices H01L 31/00)}
3/357	. . {comprising hollow cavities}		
3/358	. . {with at least one of the layers being offset with respect to another layer}	3/405	. . {Wall copings}
3/36	. Connecting; Fastening	<b>5/00</b>	<b>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)</b>
3/3601	. . {of roof covering supported by the roof structure with interposition of a insulating layer (E04D 3/3607, E04D 3/3608, E04D 3/361 - E04D 3/369 take precedence)}	<b>NOTE</b>	Group E04D 5/12 takes precedence over groups E04D 5/02 - E04D 5/10
3/3602	. . . {The fastening means comprising elongated profiles installed in or on the insulation layer}	5/02	. of materials impregnated with sealing substances, e.g. roofing felt
3/3603	. . . {the fastening means being screws or nails}	5/04	. by making use of metal foils
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)}	5/06	. by making use of plastics
3/3606	. . . {the fastening means being screws or nails}	5/08	. by making use of other materials
3/3607	. . {the fastening means comprising spacer means adapted to the shape of the profiled roof covering}	5/10	. by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen
3/3608	. . {for double roof covering or overroofing}	5/12	. specially modified, e.g. perforated, with granulated surface, with attached pads
	<b>NOTE</b>	5/14	. Fastening means therefor
	In groups E04D 3/361 - E04D 3/368, additional small fastening elements, e.g. nails, screws, are not to be considered to be separate connecting elements.	5/141	. . {characterised by the location of the fastening means}
3/361	. . by specially-profiled marginal portions of the slabs or sheets	5/142	. . . {along the edge of the flexible material}
2003/3612	. . . {Separate fastening elements fixed to the roof structure and comprising plastic parts for avoiding thermal bridges}	5/143	. . . {in the field of the flexible material}
2003/3615	. . . {Separate fastening elements fixed to the roof structure and consisting of parts permitting relative movement to each other, e.g. for thermal expansion}	5/144	. . {Mechanical fastening means}
2003/3617	. . . {with locking or snapping edges located in the thickness of the slab or sheet}	5/145	. . . {Discrete fastening means, e.g. discs or clips}
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	5/146	. . . {Linear fastening means, e.g. strips}
3/363	. . . with snap action (E04D 3/366 takes precedence)	5/147	. . . {not perforating the flexible material}
3/364	. . . {by folding of the edges}	5/148	. . {fastening by gluing}
3/365	. . by simple overlapping of the marginal portions with use of separate connecting elements, e.g. hooks or bolts for corrugated sheets	5/149	. . {fastening by welding}
3/366	. . by closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips	<b>7/00</b>	<b>Roof covering {exclusively consisting of} sealing masses applied in situ; Gravelling of flat roofs</b>
3/368	. . by forcing together the marginal portions of adjacent slabs or sheets	7/005	. {characterised by loose or embedded gravel or granules as an outer protection of the roof covering}
3/369	. . by welding of the marginal portions of adjacent slabs or sheets {also by soldering, glueing}	<b>9/00</b>	<b>Roof covering by using straw, thatch, or like materials (impregnation against incendiary damage B27K)</b>
3/38	. Devices for sealing spaces or joints between roof-covering elements (E04D 3/36 takes precedence; sealing joints not restricted to roof-covering elements E04B 1/68)	<b>11/00</b>	<b>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}</b>
		11/002	. {consisting of two or more layers, at least one of the layers permitting turfing of the roof}
		11/005	. {Supports for elevated load-supporting roof coverings}
		11/007	. . {Height-adjustable spacers}

11/02	<ul style="list-style-type: none"> <li>Build-up roofs, i.e. consisting of two or more layers bonded together <i>in situ</i>, at least one of the layers being of watertight composition (<a href="#">gravelling of flat roofs E04D 7/00</a>; <a href="#">venting or ventilation E04D 13/17</a>)</li> </ul>	13/0358	<ul style="list-style-type: none"> <li>{the parts moving, in their own plane, e.g. rolling or sliding, or moving in parallel planes with or without an additional movement, e.g. both pivoting and rolling or sliding}</li> </ul>
12/00	<b>Non-structural supports for roofing materials, e.g. battens, boards</b> ( <a href="#">E04D 11/02</a> {and <a href="#">E04D 13/16</a> } take precedence; {self-supporting slabs with non-structural supports for roofing materials <a href="#">E04B 7/205</a> })	13/04	<ul style="list-style-type: none"> <li>Roof drainage; Drainage fittings in flat roofs, {balconies or the like} (<a href="#">gutter tiles E04D 1/30</a>; <a href="#">gutter slabs E04D 3/40</a>; {vessels for collecting rainwater <a href="#">E03B 3/03</a>; } <a href="#">street gullies E03F 5/04</a>)</li> </ul>
12/002	<ul style="list-style-type: none"> <li>{Sheets of flexible material, e.g. roofing tile underlay}</li> </ul>	13/0404	<ul style="list-style-type: none"> <li>{Drainage on the roof surface}</li> </ul>
12/004	<ul style="list-style-type: none"> <li>{Battens}</li> </ul>	13/0409	<ul style="list-style-type: none"> <li>{Drainage outlets, e.g. gullies}</li> </ul>
12/006	<ul style="list-style-type: none"> <li>{Batten-supporting means}</li> </ul>	2013/0413	<ul style="list-style-type: none"> <li>{Strainers for drainage outlets}</li> </ul>
12/008	<ul style="list-style-type: none"> <li>{Ridge-batten brackets}</li> </ul>	2013/0418	<ul style="list-style-type: none"> <li>{with de-icing devices or snow melters}</li> </ul>
13/00	<b>Special arrangements or devices in connection with roof coverings; {Protection against birds}; Roof drainage; {Sky-lights}</b> ( <a href="#">ventilation tiles E04D 1/30</a> ; <a href="#">ventilation slabs E04D 3/40</a> ; <a href="#">internal channels E04F 17/00</a> ; elements therefor, <a href="#">see the relevant groups</a> )	2013/0422	<ul style="list-style-type: none"> <li>{for draining water above the roof level, e.g. gullies with overflow ports}</li> </ul>
13/002	<ul style="list-style-type: none"> <li>{Provisions for preventing vegetational growth, e.g. fungi, algae or moss}</li> </ul>	2013/0427	<ul style="list-style-type: none"> <li>{with means for controlling the flow in the outlet}</li> </ul>
13/004	<ul style="list-style-type: none"> <li>{Protection against birds, mice or the like (<a href="#">scaring devices for birds in general A01M 29/00</a>)}</li> </ul>	13/0431	<ul style="list-style-type: none"> <li>{with horizontal evacuation over the border of the roof}</li> </ul>
13/006	<ul style="list-style-type: none"> <li>{Provisions for detecting water leakage}</li> </ul>	2013/0436	<ul style="list-style-type: none"> <li>{with sealing means}</li> </ul>
13/008	<ul style="list-style-type: none"> <li>{Provisions for reducing rain noise}</li> </ul>	2013/044	<ul style="list-style-type: none"> <li>{on multiple levels}</li> </ul>
13/02	<ul style="list-style-type: none"> <li>Roof-covering aspects of dormer windows (<a href="#">E04D 13/14</a> takes precedence; structures therefor <a href="#">E04B 7/18</a>)</li> </ul>	13/0445	<ul style="list-style-type: none"> <li>{Drainage channels}</li> </ul>
13/03	<ul style="list-style-type: none"> <li>Sky-lights; Domes; Ventilating sky-lights (<a href="#">E04D 13/14</a> takes precedence; structures therefor, {e.g. dormer windows} <a href="#">E04B 7/18</a>; {saw-tooth roofs with light-transmission <a href="#">E04B 7/12</a>})</li> </ul>	2013/045	<ul style="list-style-type: none"> <li>{on inclined roofs}</li> </ul>
13/0305	<ul style="list-style-type: none"> <li>{Supports or connecting means for sky-lights of flat or domed shape}</li> </ul>	2013/0454	<ul style="list-style-type: none"> <li>{at the intersection of roof surfaces, e.g. roof valleys}</li> </ul>
13/031	<ul style="list-style-type: none"> <li>{characterised by a frame for connection to an inclined roof}</li> </ul>	13/0459	<ul style="list-style-type: none"> <li>{Drainage borders, e.g. dripping edges, gravel stops or dispersers}</li> </ul>
13/0315	<ul style="list-style-type: none"> <li>{characterised by a curb frame}</li> </ul>	2013/0463	<ul style="list-style-type: none"> <li>{Dispersers}</li> </ul>
13/032	<ul style="list-style-type: none"> <li>{Supports or connecting means for sky-lights of vaulted shape}</li> </ul>	2013/0468	<ul style="list-style-type: none"> <li>{Drip edges}</li> </ul>
13/0325	<ul style="list-style-type: none"> <li>{provided with ventilating means (<a href="#">roof ventilation F24F 7/02</a>)}</li> </ul>	2013/0472	<ul style="list-style-type: none"> <li>{Gravel stops}</li> </ul>
13/033	<ul style="list-style-type: none"> <li>{provided with means for controlling the light-transmission or the heat-reflection, (e.g. shields, reflectors, cleaning devices)}</li> </ul>	13/0477	<ul style="list-style-type: none"> <li>{Underroof drainage layers (<a href="#">layers permitting turfing of the roof E04D 11/002</a>)}</li> </ul>
13/0335	<ul style="list-style-type: none"> <li>{Skylight guards, security devices protecting skylights or preventing objects or persons from falling through skylight openings}</li> </ul>	13/0481	<ul style="list-style-type: none"> <li>{Drainage guiding provisions, e.g. deflectors or stimulation by inclined surfaces}</li> </ul>
2013/034	<ul style="list-style-type: none"> <li>{Daylight conveying tubular skylights}</li> </ul>	2013/0486	<ul style="list-style-type: none"> <li>{Deflectors}</li> </ul>
2013/0345	<ul style="list-style-type: none"> <li>{with skylight shafts extending from roof to ceiling}</li> </ul>	2013/049	<ul style="list-style-type: none"> <li>{of condensation water or infiltrated rainwater}</li> </ul>
13/035	<ul style="list-style-type: none"> <li>characterised by having movable parts {(<a href="#">preventing the spread of fire A62C 3/00</a>; <a href="#">roof structures with movable roof parts E04B 7/16</a>; <a href="#">operating mechanisms for sky-lights E05F 11/00</a>; <a href="#">automatically acting closers E05F 17/00</a>)}</li> </ul>	2013/0495	<ul style="list-style-type: none"> <li>{to storage tanks}</li> </ul>
13/0351	<ul style="list-style-type: none"> <li>{the parts pivoting about a fixed axis}</li> </ul>	13/064	<ul style="list-style-type: none"> <li>Gutters ({<a href="#">drainage channels on the roof surface E04D 13/0445</a>; <a href="#">gutters for greenhouses A01G 9/1476</a>)}</li> </ul>
13/0352	<ul style="list-style-type: none"> <li>{the parts being of domed or pyramidal shape}</li> </ul>	13/0641	<ul style="list-style-type: none"> <li>{Gutter ends}</li> </ul>
13/0354	<ul style="list-style-type: none"> <li>{the parts being flat}</li> </ul>	13/0643	<ul style="list-style-type: none"> <li>{Gutter corners}</li> </ul>
13/0355	<ul style="list-style-type: none"> <li>{The parts being of vaulted shape}</li> </ul>	13/0645	<ul style="list-style-type: none"> <li>{Connections between gutter and down pipe}</li> </ul>
13/0357	<ul style="list-style-type: none"> <li>{the parts pivoting about an axis supported on a hinged frame or arms}</li> </ul>	13/0646	<ul style="list-style-type: none"> <li>{made of concrete or stone-like material}</li> </ul>
		13/0648	<ul style="list-style-type: none"> <li>{comprising provisions for heat insulation, e.g. an insulation layer}</li> </ul>
		13/068	<ul style="list-style-type: none"> <li>Means for fastening gutter parts together</li> </ul>
		13/0685	<ul style="list-style-type: none"> <li>{in combination with hanging means}</li> </ul>
		13/072	<ul style="list-style-type: none"> <li>Hanging means (<a href="#">in combination with means for fastening gutter parts together E04D 13/0685</a>)</li> </ul>
		13/0722	<ul style="list-style-type: none"> <li>{extending mainly under the gutter}</li> </ul>
		13/0725	<ul style="list-style-type: none"> <li>{situated above or inside the gutter}</li> </ul>
		13/0727	<ul style="list-style-type: none"> <li>{situated mainly at the rear side of the gutter}</li> </ul>
		13/076	<ul style="list-style-type: none"> <li>Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof</li> </ul>
		13/0762	<ul style="list-style-type: none"> <li>{De-icing devices or snow melters}</li> </ul>
		13/0765	<ul style="list-style-type: none"> <li>{Cleaning tools}</li> </ul>
		13/0767	<ul style="list-style-type: none"> <li>{Strainers at connection between gutter and down pipe}</li> </ul>
		13/08	<ul style="list-style-type: none"> <li>Down pipes; Special clamping means therefor (<a href="#">clamping pipes in general F16B, F16L</a>)</li> </ul>



2013/0806	. . . {Details of lower end of down pipes, e.g. connection to water disposal system}	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}
2013/0813	. . . . {Water diverters}	13/1606	. {Insulation of the roof covering characterised by its integration in the roof structure (self-supporting insulating slabs <a href="#">E04B 7/22</a> , <a href="#">E04B 7/225</a> )}
2013/082	. . . {Down pipe branches}	13/1612	. . . {the roof structure comprising a supporting framework of roof purlins or rafters}
2013/0826	. . . {Passages of down pipes through walls or floors}	13/1618	. . . . {with means for fixing the insulating material between the roof covering and the upper surface of the roof purlins or rafters}
2013/0833	. . . {Elbow pieces}	13/1625	. . . . {with means for supporting the insulating material between the purlins or rafters (insulating layers disposed between two longitudinal supporting elements <a href="#">E04B 1/7654</a> )}
2013/084	. . . {Means for fixing down pipes to structure}	13/1631	. . . . . {the means deriving from the nature or the shape of the insulating material itself}
2013/0846	. . . {Interconnecting down pipe parts}	13/1637	. . . . {the roof purlins or rafters being mainly insulated from the interior, e.g. the insulating material being fixed under or suspended from the supporting framework}
2013/0853	. . . {Valves for controlling the rain water flow}	13/1643	. . . {the roof structure being formed by load bearing corrugated sheets, e.g. profiled sheet metal roofs}
2013/086	. . . {Filters}	13/165	. . . . {Double skin roofs}
2013/0866	. . . {Access opening for cleaning; Devices for avoiding cumulation of debris}	13/1656	. . . . {Closure strips or elements filling the spaces between the corrugated sheets and a supporting wall}
2013/0873	. . . {Rain water reservoirs integrated in down pipes}	13/1662	. . . {Inverted roofs or exteriorly insulated roofs}
2013/088	. . . {De-icing devices or snow melters}	13/1668	. . . {the insulating material being masses or granules applied <i>in situ</i> }
2013/0886	. . . {Devices for preventing climbing on down pipes}	13/1675	. . . . {on saddle-roofs or inclined roof surfaces}
2013/0893	. . . {incorporated in building structure}	13/1681	. . . {Insulating of pre-existing roofs with or without ventilating arrangements}
13/10	. Snow traps {; Removing snow from roofs; Snow melters}	13/1687	. . {the insulating material having provisions for roof drainage}
13/103	. . {De-icing devices or snow melters (for drainage outlets <a href="#">E04D 13/0409</a> , for gutters <a href="#">E04D 13/0762</a> , for down pipes <a href="#">E04D 13/08</a> )}	13/1693	. . . {the upper surface of the insulating material forming an inclined surface}
13/106	. . {Snow removing devices (for gutters <a href="#">E04D 13/076</a> )}	13/17	. Ventilation of roof coverings not otherwise provided for ( <a href="#">ventilation of rooms or spaces F24F</a> )
13/12	. Devices or arrangements allowing walking on the roof or in the gutter	13/172	. . {Roof insulating material with provisions for or being arranged for permitting ventilation of the roof covering}
13/14	. Junctions of roof sheathings to chimneys or other parts extending above the roof	13/174	. . {on the ridge of the roof}
13/1407	. . {for flat roofs}	13/176	. . . {formed by flexible material suitable to be rolled up}
13/1415	. . . {Junctions to walls extending above the perimeter of the roof ( <a href="#">trimming strips, edge strips or fascias retaining the roof sheathing E04D 13/155</a> )}	13/178	. . {on the eaves of the roof}
2013/1422	. . {Parapet building elements for retaining the roof flashing}	<b>15/00</b>	<b>Apparatus or tools for roof working</b>
13/143	. . with ventilating means {in junctions of roof sheathings to parts extending above the roof}	15/003	. {for removing roof material (for floor coverings <a href="#">E04G 23/006</a> )}
13/147	. . specially adapted for inclined roofs {(trays for cavity walls <a href="#">E04B 1/70</a> )}	15/006	. {for cleaning the roof (for cleaning gutters <a href="#">E04D 13/0765</a> ; for removing snow from roofs <a href="#">E04D 13/106</a> )}
13/1471	. . . {using a hinge mechanism for adaptation to the inclined roof}	15/02	. for roof coverings comprising tiles, shingles, or like roofing elements {( <a href="#">E04D 15/003</a> takes precedence)}
13/1473	. . . {specially adapted to the cross-section of the parts extending above the roof}	15/025	. . {Templates, gauges or spacers for installing roof tiles or roof laths ( <a href="#">templates for rafters E04G 21/1891</a> )}
13/1475	. . . . {wherein the parts extending above the roof have a generally rectangular cross-section}	15/04	. for roof coverings comprising slabs, sheets or flexible material
13/1476	. . . . {wherein the parts extending above the roof have a generally circular cross-section}	2015/042	. . {Fixing to the roof supporting structure}
13/1478	. . . {Junctions to walls extending above the roof}		
13/15	. Trimming strips; Edge strips; Fascias; {Expansion joints for roofs (wall copings <a href="#">E04D 3/405</a> ; drainage borders <a href="#">E04D 13/0459</a> ; joints in general <a href="#">E04B 1/68</a> )}		
13/151	. . {Expansion joints for roofs}		
13/152	. . with ventilating means {in soffits or fascias; ( <a href="#">on the eaves of the roof E04D 13/178</a> )}		
13/155	. . retaining the roof sheathing		
13/158	. . covering the overhang at the eave side, e.g. soffits, or the verge of saddle roofs		
13/1585	. . . {covering the verge of saddle roofs ( <a href="#">gable tiles E04D 1/30</a> )}		

## E04D

- 2015/045 . . . {by nailing}
- 2015/047 . . . {by screwing}
- 15/06 . for handling roofing or sealing material in roll form
- 15/07 . for handling roofing or sealing material in bulk form