

**CPC****COOPERATIVE PATENT CLASSIFICATION****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

**WARNING**

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>	" "	<a href="#">E04D 3/364</a>
<a href="#">E04D 13/18</a>	" "	<a href="#">F24J 2/00</a> , <a href="#">H02S 20/23</a>

**E04D 1/00****Roof covering by making use of tiles, slates, shingles, or other small roofing elements** (roofing supports {and underlayers} [E04D 12/00](#))**E04D 2001/005**

. {the roofing elements having a granulated surface }

**E04D 1/02**

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

**E04D 1/025**

.. { Diamond shaped and installed in diagonal lines}

**E04D 1/04**

.. of ceramics, glass or concrete, with or without reinforcement

**E04D 1/045**

... {Vaulted roofing elements laid alternately side-up and side-down, e.g. monks and nuns tiles}

**E04D 1/06**

.. of metal

**E04D 1/08**

.. of plastics; {of asphalt;} of fibrous materials

**E04D 1/085**

... { of wood}

**E04D 1/10**

.. of specified materials { not covered by any one of groups [E04D 1/04](#) to [E04D 1/085](#)}, or of combinations of materials, { where at least one is} not covered by any one of groups [E04D 1/04](#) to [E04D 1/085](#)

**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)

**E04D 1/125**

.. { Diamond shaped and installed in diagonal lines}

**E04D 1/14**

.. of slate material, with or without fastening means

**E04D 1/16**

.. of ceramics, glass or concrete, with or without reinforcement

**E04D 1/18**

.. of metal

**E04D 1/20**

.. of plastics; {of asphalt;} of fibrous materials

**E04D 1/205**

... { of wood}

**E04D 1/22**

.. of specified materials { not covered by any one of groups [E04D 1/14](#) to [E04D 1/205](#)}, or of combinations of materials, { where at least one is} not covered by any one of groups [E04D 1/14](#) to [E04D 1/205](#)

- E04D 1/24 . Roofing elements with cavities, e.g. hollow tiles ([E04D 1/28 takes precedence](#))
- E04D 1/26 . Strip-shaped roofing elements appearing as a row of shingles
- E04D 1/265 .. { the roofing elements being rigid, e.g. made of metal, wood or concrete }
- E04D 1/28 . Roofing elements comprising two or more layers, e.g. for insulation
- 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)
- E04D 2001/301 .. {at roof edges, e.g. intersections with walls }
- E04D 2001/302 ... {Gable tiles }
- E04D 2001/303 ... {Eave tiles }
- E04D 2001/304 .. {at roof intersections, e.g. valley tiles, ridge tiles }
- E04D 2001/305 ... {Ridge or hip tiles }
- E04D 2001/306 .... {Under-ridge tiles }
- E04D 2001/307 .. {for passages in the roof surface }
- E04D 2001/308 .. {for special purposes not otherwise provided for, e.g. turving tiles, step tiles }
- E04D 2001/309 .. {Ventilation tiles }
- E04D 1/34 . Fastenings for attaching roof-covering elements to the supporting elements
- E04D 1/3402 .. {for ridge or roofhip tiles }
- E04D 1/3405 .. {for eaves -, valley - or verge tiles }
- E04D 2001/3408 .. {characterised by the fastener type or material }
- E04D 2001/3411 ... {Metal wires or rods }
- E04D 2001/3414 ... {Metal strips or sheet metal }
- E04D 2001/3417 ... {Synthetic, composite or molded material }
- E04D 2001/342 ... {Flexible filamentous ties, e.g. to be twisted or forming nets }
- E04D 2001/3423 ... {Nails, rivets, staples or straps piercing or perforating the roof covering material }
- E04D 2001/3426 ... {Threaded elements, e.g. screws or bolts }
- E04D 2001/3429 ... {Press-studs elements }
- E04D 2001/3432 ... {Strips covering the gap between the roof covering elements }
- E04D 2001/3435 ... {Adhesive, hardenable or heat-sensitive material }
- E04D 2001/3438 ... {Fasteners comprising several coacting elements }
- E04D 2001/3441 ... {Series of easily separable fasteners }
- E04D 2001/3444 .. {characterised by the roof covering or structure with integral or premounted fastening means }
- E04D 2001/3447 ... {the fastening means being integral or premounted to the roof covering }
- E04D 2001/345 ... {the fastening means being integral or premounted to the roof structure }
- E04D 2001/3452 .. {characterised by the location of the fastening means }
- E04D 2001/3455 ... {on the internal surface of the roof covering elements }
- E04D 2001/3458 ... {on the upper or lower transverse edges of the roof covering elements }
- E04D 2001/3461 ... {on the lateral edges of the roof covering elements }
- E04D 2001/3464 ... {on the lateral corners of the roof covering elements for diagonally tiled roofs }
- E04D 2001/3467 ... {through apertures, holes or slots }

- E04D 2001/347     ..     {characterised by the fastening pattern }
- E04D 2001/3473   ...     {fastening single roof elements to the roof structure with or without indirect clamping of neighbouring roof covering elements }
- E04D 2001/3476   ...     {the fastening means taking hold directly on adjacent elements of the same row and fastening them simultaneously to the roof structure }
- E04D 2001/3479   ...     {the fastening means taking hold directly on adjacent elements of the same row and fastening them only to each other }
- E04D 2001/3482   ...     {the fastening means taking hold directly on elements of succeeding rows and fastening them simultaneously to the structure }
- E04D 2001/3485   ...     {the fastening means taking hold directly on elements of succeeding rows and fastening them only to each other }
- E04D 2001/3488   ..     {characterised by the type of roof covering elements being fastened }
- E04D 2001/3491   ...     {made of flexible material, e.g. shingles }
- E04D 2001/3494   ...     {made of rigid material having a flat external surface }
- E04D 2001/3497   ...     {Spanish type tiles }
- 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](#)})
- E04D 1/365       ..     { Sealing strips between lateral sides of roof-covering elements }
  
- 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](#))
- E04D 3/02         .     of plane slabs, slates, or sheets, or in which the cross-section is unimportant ([E04D 3/35](#) takes precedence)
- E04D 3/04         ..     of concrete or ceramics ([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](#))
- E04D 2003/065     ...     {Corner- or point-supported glazing }
- E04D 3/08         ...     with metal glazing bars
- E04D 2003/0806   ....     {the supporting section of the glazing bar consisting of one single extruded or rolled metal part }
- E04D 2003/0812   ....     {the supporting section of the glazing bar consisting of one single bent or otherwise deformed sheetmetal }
- E04D 2003/0818   ....     {the supporting section of the glazing bar consisting of several parts, e.g. compound sections }
- E04D 2003/0825   .....     {the metal section covered by parts of other material }
- E04D 2003/0831   .....     {Glazing gaskets of particular shape }
- E04D 2003/0837   .....     {Sections comprising intermediate parts of insulating material }
- E04D 2003/0843   ....     {Clamping of the sheets or glass panes to the glazing bars by means of covering strips }
- E04D 2003/085     .....     {locked by snap action }
- E04D 2003/0856   .....     {locked by screws, bolts or pins }
- E04D 2003/0862   ....     {by means of separate clips or hooks }
- E04D 2003/0868   ....     {Mutual connections and details of glazing bars }

E04D 2003/0875	.....	{on the ridge of the roof or on intersecting roof parts }
E04D 2003/0881	.....	{on the eaves of the roof }
E04D 2003/0887	....	{Glazing bars for coverings consisting of more than one sheet or glass pane }
E04D 2003/0893	....	{Glazing bars comprising means for draining condensation water or infiltrated rainwater }
E04D 3/14	...	with glazing bars of other material, e.g. of glass
E04D 3/16	..	of metal
E04D 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>
E04D 3/24	.	with special cross-section, e.g. with corrugations on both sides, with ribs, flanges, or the like ( <a href="#">E04D 3/35</a> takes precedence)
E04D 3/26	..	of concrete or ceramics
E04D 3/28	..	of glass {or other translucent material}
E04D 2003/285	...	{with specially profiled marginal portions for connecting purposes }
E04D 3/30	..	of metal
E04D 3/32	..	of plastics, fibrous materials, or asbestos cement
E04D 3/34	..	of specified materials, or of combinations of materials, not covered by any one of groups <a href="#">E04D 3/26</a> to <a href="#">E04D 3/32</a>
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 <a href="#">E04B 7/22</a> ; insulating devices or arrangements in the roof covering <a href="#">E04D 13/16</a> ; connecting, fastening of double roof covering <a href="#">E04D 3/3608</a> )}
E04D 3/351	..	{at least one of the layers being composed of insulating material, e.g. fibre or foam material}
E04D 3/352	...	{at least one insulating layer being located between non-insulating layers, e.g. double skin slabs or sheets}
E04D 3/354	...	{more than one of the layers being composed of insulating material}
E04D 3/355	...	{the insulating layers of adjacent slabs having cooperating edges}
E04D 3/357	..	{comprising hollow cavities}
E04D 3/358	..	{with at least one of the layers being offset with respect to another layer}
E04D 3/36	.	Connecting; Fastening
E04D 3/3601	..	{of roof covering supported by the roof structure with interposition of a insulating layer ( <a href="#">E04D 3/3607</a> , <a href="#">E04D 3/3608</a> , <a href="#">E04D 3/361</a> to <a href="#">E04D 3/369</a> take precedence)}
E04D 3/3602	...	{ The fastening means comprising elongated profiles installed in or on the insulation layer}
E04D 3/3603	...	{the fastening means being screws or nails}
E04D 3/3605	..	{of roof covering supported directly by the roof structure ( <a href="#">E04D 3/3607</a> , <a href="#">E04D 3/3608</a> , <a href="#">E04D 3/361</a> to <a href="#">E04D 3/369</a> take precedence)}
E04D 3/3606	...	{the fastening means being screws or nails}
E04D 3/3607	..	{the fastening means comprising spacer means adapted to the shape of the profiled roof covering}
E04D 3/3608	..	{for double roof covering or overroofing}

**NOTE**

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

- [E04D 3/361](#) . . by specially-profiled marginal portions of the slabs or sheets
- [E04D 2003/3612](#) . . . {Separate fastening elements fixed to the roof structure and comprising plastic parts for avoiding thermal bridges }
- [E04D 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 }
- [E04D 2003/3617](#) . . . {with locking or snapping edges located in the thickness of the slab or sheet }
- [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
- [E04D 3/363](#) . . . with snap action ([E04D 3/366](#) takes precedence)
- [E04D 3/364](#) . . . by folding of the edges
- [E04D 3/365](#) . . by simple overlapping of the marginal portions with use of separate connecting elements, e.g. hooks or bolts for corrugated sheets
- [E04D 3/366](#) . . by closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips
- [E04D 3/368](#) . . by forcing together the marginal portions of adjacent slabs or sheets
- [E04D 3/369](#) . . by welding of the marginal portions of adjacent slabs or sheets {also by soldering, glueing}
- [E04D 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](#))
- [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 ({[E04D 13/15](#) and [E04D 13/174](#) take precedence; ridge sealing [E04D 1/36](#); solar collectors [F24J 2/00](#); photovoltaic devices [H01L 31/00](#)})
- [E04D 3/405](#) . . {Wall copings}
- [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](#))

#### **NOTE**

Group [E04D 5/12](#) takes precedence over groups [E04D 5/02](#) to [E04D 5/10](#)

- [E04D 5/02](#) . of materials impregnated with sealing substances, e.g. roofing felt
- [E04D 5/04](#) . by making use of metal foils
- [E04D 5/06](#) . by making use of plastics
- [E04D 5/08](#) . by making use of other materials
- [E04D 5/10](#) . by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen
- [E04D 5/12](#) . specially modified, e.g. perforated, with granulated surface, with attached pads
- [E04D 5/14](#) . Fastening means therefor

E04D 5/141	.. {characterised by the location of the fastening means}
E04D 5/142	... {along the edge of the flexible material}
E04D 5/143	... {in the field of the flexible material}
E04D 5/144	.. {Mechanical fastening means}
E04D 5/145	... {Discrete fastening means, e.g. discs or clips}
E04D 5/146	... { Linear fastening means, e.g. strips}
E04D 5/147	... {not perforating the flexible material}
E04D 5/148	.. {fastening by gluing}
E04D 5/149	.. {fastening by welding}
<b>E04D 7/00</b>	<b>Roof covering {exclusively consisting of} sealing masses applied in situ; Graveling of flat roofs</b>
E04D 7/005	. {characterised by loose or embedded gravel or granules as an outer protection of the roof covering}
<b>E04D 9/00</b>	<b>Roof covering by using straw, thatch, or like materials (impregnation against incendiary damage <a href="#">B27K</a>)</b>
<b>E04D 11/00</b>	<b>Roof covering, as far as not restricted to features covered by only one of groups <a href="#">E04D 1/00</a> to <a href="#">E04D 9/00</a>; Roof covering in ways not provided for by groups <a href="#">E04D 1/00</a> to <a href="#">E04D 9/00</a>, {e.g. built-up roofs, elevated load-supporting roof coverings}</b>
E04D 11/002	. {consisting of two or more layers, at least one of the layers permitting turving of the roof}
E04D 11/005	. { Supports for elevated load-supporting roof coverings [ <a href="#">M1207</a> ]
E04D 11/007	.. { Height-adjustable spacers}
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 ( <a href="#">gravelling of flat roofs <a href="#">E04D 7/00</a></a> ; <a href="#">venting or ventilation <a href="#">E04D 13/17</a></a> )
<b>E04D 12/00</b>	<b>Non-structural supports for roofing materials, e.g. battens, boards (<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>})</b>
E04D 12/002	. {Sheets of flexible material, e.g. roofing tile underlay}
E04D 12/004	. {Battens}
E04D 12/006	.. {Batten-supporting means}
E04D 12/008	... {Ridge-batten brackets}
<b>E04D 13/00</b>	<b>Special arrangements or devices in connection with roof coverings; {Protection against birds}; Roof drainage; {Sky-lights} (ventilation tiles <a href="#">E04D 1/30</a>; ventilation slabs <a href="#">E04D 3/40</a>; internal channels <a href="#">E04F 17/00</a>; elements therefor, see the relevant groups)</b>
E04D 13/002	. {Provisions for preventing vegetational growth, e.g. fungi, algae or moss}
E04D 13/004	. {Protection against birds, mice or the like ( <a href="#">scaring devices for birds in general <a href="#">A01M 29/00</a></a> )}
E04D 13/006	. { Provisions for detecting water leakage}

- E04D 13/008 . { Provisions for reducing rain noise}
- E04D 13/02 . Roof-covering aspects of dormer windows ([E04D 13/14](#) takes precedence; structures therefor [E04B 7/18](#))
- 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](#)})
- E04D 13/0305 .. {Supports or connecting means for sky-lights of flat or domed shape}
- E04D 13/031 ... {characterised by a frame for connection to an inclined roof}
- E04D 13/0315 ... {characterised by a curb frame}
- E04D 13/032 .. {Supports or connecting means for sky-lights of vaulted shape}
- E04D 13/0325 .. {provided with ventilating means ([roof ventilation F24F 7/02](#))}
- E04D 13/033 .. {provided with means for controlling the light-transmission or the heat-reflection, (e.g. shields, reflectors, cleaning devices)}
- E04D 13/0335 .. {Skylight guards, security devices protecting skylights or preventing objects or persons from falling through skylight openings}
- E04D 2013/034 .. {Daylight conveying tubular skylights }
- E04D 2013/0345 ... {with skylight shafts extending from roof to ceiling }
- 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](#))}
- E04D 13/0351 ... {the parts pivoting about a fixed axis}
- E04D 13/0352 .... {the parts being of domed or pyramidal shape}
- E04D 13/0354 .... {the parts being flat}
- E04D 13/0355 .... { The parts being of vaulted shape}
- E04D 13/0357 ... {the parts pivoting about an axis supported on a hinged frame or arms}
- E04D 13/0358 ... {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}
- 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](#))
- E04D 13/0404 .. {Drainage on the roof surface}
- E04D 13/0409 ... {Drainage outlets, e.g. gullies}
- E04D 2013/0413 .... {Strainers for drainage outlets }
- E04D 2013/0418 .... {with de-icing devices or snow melters }
- E04D 2013/0422 .... {for draining water above the roof level, e.g. gullies with overflow ports }
- E04D 2013/0427 .... {with means for controlling the flow in the outlet }
- E04D 13/0431 .... {with horizontal evacuation over the border of the roof}
- E04D 2013/0436 .... {with sealing means }
- E04D 2013/044 ..... {on multiple levels }
- E04D 13/0445 ... {Drainage channels}
- E04D 2013/045 .... {on inclined roofs }
- E04D 2013/0454 ..... {at the intersection of roof surfaces, e.g. roof valleys }



E04D 13/0459	...	{Drainage borders, e.g. dripping edges, gravel stops or dispersers}
E04D 2013/0463	....	{Dispersers}
E04D 2013/0468	....	{Drip edges }
E04D 2013/0472	....	{Gravel stops }
E04D 13/0477	...	{Underroof drainage layers (layers permitting turfing of the roof <a href="#">E04D 11/002</a> )}
E04D 13/0481	...	{Drainage guiding provisions, e.g. deflectors or stimulation by inclined surfaces}
E04D 2013/0486	....	{Deflectors }
E04D 2013/049	...	{of condensation water or infiltrated rainwater }
E04D 2013/0495	...	{to storage tanks }
E04D 13/064	..	Gutters {drainage channels on the roof surface <a href="#">E04D 13/0445</a> ; gutters for greenhouses <a href="#">A01G 9/1476</a> }
E04D 13/0641	...	{ Gutter ends}
E04D 13/0643	...	{ Gutter corners}
E04D 13/0645	...	{ Connections between gutter and down pipe}
E04D 13/0646	...	{ made of concrete or stone-like material}
E04D 13/0648	...	{ comprising provisions for heat insulation, e.g. an insulation layer}
E04D 13/068	...	Means for fastening gutter parts together
E04D 13/0685	....	{in combination with hanging means}
E04D 13/072	...	Hanging means (in combination with means for fastening gutter parts together <a href="#">E04D 13/0685</a> )
E04D 13/0722	....	{ extending mainly under the gutter}
E04D 13/0725	....	{ situated above or inside the gutter}
E04D 13/0727	....	{ situated mainly at the rear side of the gutter}
E04D 13/076	..	Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof
E04D 13/0762	...	{ De-icing devices or snow melters}
E04D 13/0765	...	{Cleaning tools}
E04D 13/0767	...	{ Strainers at connection between gutter and down pipe}
E04D 13/08	..	Down pipes; Special clamping means therefor (clamping pipes in general <a href="#">F16B</a> , <a href="#">F16L</a> )
E04D 2013/0806	...	{Details of lower end of down pipes, e.g. connection to water disposal system }
E04D 2013/0813	....	{Water diverters }
E04D 2013/082	...	{Down pipe branches }
E04D 2013/0826	...	{Passages of down pipes through walls or floors }
E04D 2013/0833	...	{Elbow pieces }
E04D 2013/084	...	{Means for fixing down pipes to structure }
E04D 2013/0846	...	{Interconnecting down pipe parts }
E04D 2013/0853	...	{Valves for controlling the rain water flow }
E04D 2013/086	...	{Filters }
E04D 2013/0866	...	{Access opening for cleaning; Devices for avoiding cumulation of debris }
E04D 2013/0873	...	{Rain water reservoirs integrated in down pipes }



E04D 2013/088	...	{De-icing devices or snow melters}
E04D 2013/0886	...	{Devices for preventing climbing on down pipes }
E04D 2013/0893	...	{incorporated in building structure }
E04D 13/10	.	Snow traps; {Removing snow from roofs; Snow melters}
E04D 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> )}
E04D 13/106	..	{ Snow removing devices (for gutters <a href="#">E04D 13/076</a> )}
E04D 13/12	.	Devices or arrangements allowing walking on the roof or in the gutter
E04D 13/14	.	Junctions of roof sheathings to chimneys or other parts extending above the roof
E04D 13/1407	..	{for flat roofs}
E04D 13/1415	...	{Junctions to walls extending above the perimeter of the roof (trimming strips, edge strips or fascias retaining the roof sheathing <a href="#">E04D 13/155</a> )}
E04D 2013/1422	..	{Parapet building elements for retaining the roof flashing }
E04D 13/143	..	with ventilating means {in junctions of roof sheathings to parts extending above the roof}
E04D 13/147	..	specially adapted for inclined roofs {trays for cavity walls <a href="#">E04B 1/70</a> }
E04D 13/1471	...	{ using a hinge mechanism for adaptation to the inclined roof}
E04D 13/1473	...	{ specially adapted to the cross-section of the parts extending above the roof}
E04D 13/1475	....	{ wherein the parts extending above the roof have a generally rectangular cross-section}
E04D 13/1476	....	{ wherein the parts extending above the roof have a generally circular cross-section}
E04D 13/1478	...	{ Junctions to walls extending above the roof}
E04D 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> )}
E04D 13/151	..	{Expansion joints for roofs}
E04D 13/152	..	with ventilating means {in soffits or fascias; (on the eaves of the roof <a href="#">E04D 13/178</a> )}
E04D 13/155	..	retaining the roof sheathing
E04D 13/158	..	covering the overhang at the eave side, e.g. soffits, or the verge of saddle roofs
E04D 13/1585	...	{covering the verge of saddle roofs (gable tiles <a href="#">E04D 1/30</a> )}
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}
E04D 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> )}
E04D 13/1612	...	{ the roof structure comprising a supporting framework of roof purlins or rafters}
E04D 13/1618	....	{with means for fixing the insulating material between the roof covering and the upper surface of the roof purlins or rafters}
E04D 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> )}
E04D 13/1631	.....	{the means deriving from the nature or the shape of the insulating material itself}

- E04D 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}
- E04D 13/1643 . . . { the roof structure being formed by load bearing corrugated sheets, e.g. profiled sheet metal roofs}
- E04D 13/165 . . . . {Double skin roofs}
- E04D 13/1656 . . . . { Closure strips or elements filling the spaces between the corrugated sheets and a supporting wall}
- E04D 13/1662 . . . { Inverted roofs or exteriorly insulated roofs}
- E04D 13/1668 . . . {the insulating material being masses or granules applied in situ}
- E04D 13/1675 . . . . {on saddle-roofs or inclined roof surfaces}
- E04D 13/1681 . . . { Insulating of pre-existing roofs with or without ventilating arrangements}
- E04D 13/1687 . . {the insulating material having provisions for roof drainage}
- E04D 13/1693 . . . {the upper surface of the insulating material forming an inclined surface}
- E04D 13/17 . . Ventilation of roof coverings not otherwise provided for ([ventilation of rooms or spaces F24F](#))
- E04D 13/172 . . { Roof insulating material with provisions for or being arranged for permitting ventilation of the roof covering}
- E04D 13/174 . . {on the ridge of the roof}
- E04D 13/176 . . . { formed by flexible material suitable to be rolled up}
- E04D 13/178 . . {on the eaves of the roof}
  
- E04D 15/00** **Apparatus or tools for roof working**
- E04D 15/003 . {for removing roof material ([for floor coverings E04G 23/006](#))}
- E04D 15/006 . { for cleaning the roof ([for cleaning gutters E04D 13/0765](#); [for removing snow from roofs E04D 13/106](#))}
- E04D 15/02 . for roof coverings comprising tiles, shingles, or like roofing elements ([\(E04D 15/003 takes precedence\)](#))
- E04D 15/025 . . { Templates, gauges or spacers for installing roof tiles or roof laths ([templates for rafters E04G 21/1891](#))}
- E04D 15/04 . for roof coverings comprising slabs, sheets or flexible material
- E04D 2015/042 . . {Fixing to the roof supporting structure }
- E04D 2015/045 . . . {by nailing }
- E04D 2015/047 . . . {by screwing }
- E04D 15/06 . for handling roofing or sealing material in roll form
- E04D 15/07 . for handling roofing or sealing material in bulk form