

CPC COOPERATIVE PATENT CLASSIFICATION

E FIXED CONSTRUCTIONS

BUILDING

E04 BUILDING (layered materials, layered products in general [B32B](#))

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:

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| E04D 3/3645 | covered by | E04D 3/363 |
| E04D 3/367 | covered by | E04D 3/364 |
| E04D 13/18 | covered by | F24S 20/67 , H02S 20/23 |

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| 1/00 | Roof covering by making use of tiles, slates, shingles, or other small roofing elements (roofing supports {and underlayers} E04D 12/00) | 1/26 | • Strip-shaped roofing elements appearing as a row of shingles |
| 2001/005 | • {the roofing elements having a granulated surface} | 1/265 | • • {the roofing elements being rigid, e.g. made of metal, wood or concrete} |
| 1/02 | • Grooved or vaulted roofing elements (E04D 1/28 , E04D 1/30 take precedence) | 1/28 | • Roofing elements comprising two or more layers, e.g. for insulation |
| 1/025 | • • {Diamond shaped and installed in diagonal lines} | 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) |
| 1/04 | • • of ceramics, glass or concrete, with or without reinforcement | 2001/301 | • • • {at roof edges, e.g. intersections with walls} |
| 1/045 | • • • {Vaulted roofing elements laid alternately side-up and side-down, e.g. monks and nuns tiles} | 2001/302 | • • • • {Gable tiles} |
| 1/06 | • • of metal | 2001/303 | • • • • {Eave tiles} |
| 1/08 | • • of plastics; {of asphalt; } of fibrous materials | 2001/304 | • • • {at roof intersections, e.g. valley tiles, ridge tiles} |
| 1/085 | • • • {of wood} | 2001/305 | • • • • {Ridge or hip tiles} |
| 1/10 | • • of specified materials {not covered by any one of groups E04D 1/04 - E04D 1/085 }, or of combinations of materials, {where at least one is} not covered by any one of groups E04D 1/04 - E04D 1/085 | 2001/306 | • • • • • {Under-ridge tiles} |
| 1/12 | • Roofing elements shaped as plain tiles or shingles, i.e. with flat outer surface (E04D 1/28 , E04D 1/30 take precedence) | 2001/307 | • • • {for passages in the roof surface} |
| 1/125 | • • {Diamond shaped and installed in diagonal lines} | 2001/308 | • • • {for special purposes not otherwise provided for, e.g. turfing tiles, step tiles} |
| 1/14 | • • of slate material, with or without fastening means | 2001/309 | • • • {Ventilation tiles} |
| 1/16 | • • of ceramics, glass or concrete, with or without reinforcement | 1/34 | • Fastenings for attaching roof-covering elements to the supporting elements |
| 1/18 | • • of metal | 1/3402 | • • • {for ridge or roofhip tiles} |
| 1/20 | • • of plastics; {of asphalt; } of fibrous materials | 1/3405 | • • • {for eaves -, valley - or verge tiles} |
| 1/205 | • • • {of wood} | 2001/3408 | • • • {characterised by the fastener type or material} |
| 1/22 | • • of specified materials {not covered by any one of groups E04D 1/14 - E04D 1/205 }, or of combinations of materials, {where at least one is} not covered by any one of groups E04D 1/14 - E04D 1/205 | 2001/3411 | • • • • {Metal wires or rods} |
| 1/24 | • Roofing elements with cavities, e.g. hollow tiles (E04D 1/28 takes precedence) | 2001/3414 | • • • • {Metal strips or sheet metal} |
| | | 2001/3417 | • • • • {Synthetic, composite or molded material} |
| | | 2001/342 | • • • • {Flexible filamentous ties, e.g. to be twisted or forming nets} |
| | | 2001/3423 | • • • • {Nails, rivets, staples or straps piercing or perforating the roof covering material} |
| | | 2001/3426 | • • • • • {Threaded elements, e.g. screws or bolts} |
| | | 2001/3429 | • • • • • {Press-studs elements} |
| | | 2001/3432 | • • • • • {Strips covering the gap between the roof covering elements} |

E04D

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| 2001/3435 | . . . {Adhesive, hardenable or heat-sensitive material} | 2003/0806 | {the supporting section of the glazing bar consisting of one single extruded or rolled metal part} |
| 2001/3438 | . . . {Fasteners comprising several coating elements} | 2003/0812 | {the supporting section of the glazing bar consisting of one single bent or otherwise deformed sheetmetal} |
| 2001/3441 | . . . {Series of easily separable fasteners} | 2003/0818 | {the supporting section of the glazing bar consisting of several parts, e.g. compound sections} |
| 2001/3444 | . . {characterised by the roof covering or structure with integral or premounted fastening means} | 2003/0825 | {the metal section covered by parts of other material} |
| 2001/3447 | . . . {the fastening means being integral or premounted to the roof covering} | 2003/0831 | {Glazing gaskets of particular shape} |
| 2001/345 | . . . {the fastening means being integral or premounted to the roof structure} | 2003/0837 | {Sections comprising intermediate parts of insulating material} |
| 2001/3452 | . . {characterised by the location of the fastening means} | 2003/0843 | {Clamping of the sheets or glass panes to the glazing bars by means of covering strips} |
| 2001/3455 | . . . {on the internal surface of the roof covering elements} | 2003/085 | {locked by snap action} |
| 2001/3458 | . . . {on the upper or lower transverse edges of the roof covering elements} | 2003/0856 | {locked by screws, bolts or pins} |
| 2001/3461 | . . . {on the lateral edges of the roof covering elements} | 2003/0862 | {by means of separate clips or hooks} |
| 2001/3464 | . . . {on the lateral corners of the roof covering elements for diagonally tiled roofs} | 2003/0868 | {Mutual connections and details of glazing bars} |
| 2001/3467 | . . . {through apertures, holes or slots} | 2003/0875 | {on the ridge of the roof or on intersecting roof parts} |
| 2001/347 | . . {characterised by the fastening pattern} | 2003/0881 | {on the eaves of the roof} |
| 2001/3473 | . . . {fastening single roof elements to the roof structure with or without indirect clamping of neighbouring roof covering elements} | 2003/0887 | {Glazing bars for coverings consisting of more than one sheet or glass pane} |
| 2001/3476 | . . . {the fastening means taking hold directly on adjacent elements of the same row and fastening them simultaneously to the roof structure} | 2003/0893 | {Glazing bars comprising means for draining condensation water or infiltrated rainwater} |
| 2001/3479 | . . . {the fastening means taking hold directly on adjacent elements of the same row and fastening them only to each other} | 3/14 | . . . with glazing bars of other material, e.g. of glass |
| 2001/3482 | . . . {the fastening means taking hold directly on elements of succeeding rows and fastening them simultaneously to the structure} | 3/16 | . . of metal |
| 2001/3485 | . . . {the fastening means taking hold directly on elements of succeeding rows and fastening them only to each other} | 3/18 | . . of specified materials, or of combinations of materials, not covered by any of groups E04D 3/04 , E04D 3/06 or E04D 3/16 |
| 2001/3488 | . . {characterised by the type of roof covering elements being fastened} | 3/24 | . with special cross-section, e.g. with corrugations on both sides, with ribs, flanges, or the like (E04D 3/35 takes precedence) |
| 2001/3491 | . . . {made of flexible material, e.g. shingles} | 3/26 | . . of concrete or ceramics |
| 2001/3494 | . . . {made of rigid material having a flat external surface} | 3/28 | . . of glass {or other translucent material} |
| 2001/3497 | . . . {Spanish type tiles} | 2003/285 | . . . {with specially profiled marginal portions for connecting purposes} |
| 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 }) | 3/30 | . . of metal |
| 1/365 | . . {Sealing strips between lateral sides of roof-covering elements} | 3/32 | . . of plastics, fibrous materials, or asbestos cement |
| 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) | 3/34 | . . of specified materials, or of combinations of materials, not covered by any one of groups E04D 3/26 - E04D 3/32 |
| 3/02 | . of plane slabs, slates, or sheets, or in which the cross-section is unimportant (E04D 3/35 takes precedence) | 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 }) |
| 3/04 | . . of concrete or ceramics (of asbestos cement E04D 3/18) | 3/351 | . . {at least one of the layers being composed of insulating material, e.g. fibre or foam material} |
| 3/06 | . . of glass or other translucent material; Fixing means therefor (fixing glass panes by means applicable to windows E06B 3/54) | 3/352 | . . . {at least one insulating layer being located between non-insulating layers, e.g. double skin slabs or sheets} |
| 2003/065 | . . . {Corner- or point-supported glazing} | 3/354 | . . . {more than one of the layers being composed of insulating material} |
| 3/08 | . . . with metal glazing bars | 3/355 | . . . {the insulating layers of adjacent slabs having cooperating edges} |
| | | 3/357 | . . {comprising hollow cavities} |
| | | 3/358 | . . {with at least one of the layers being offset with respect to another layer} |
| | | 3/36 | . Connecting; Fastening |

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| 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)} | 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) |
| 3/3602 | . . . {The fastening means comprising elongated profiles installed in or on the insulation layer} | | |
| 3/3603 | . . . {the fastening means being screws or nails} | | |
| 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)} | | |
| 3/3606 | . . . {the fastening means being screws or nails} | 5/02 | . of materials impregnated with sealing substances, e.g. roofing felt |
| 3/3607 | . . {the fastening means comprising spacer means adapted to the shape of the profiled roof covering} | 5/04 | . by making use of metal foils |
| | | 5/06 | . by making use of plastics |
| | | 5/08 | . by making use of other materials |
| 3/3608 | . . {for double roof covering or overroofing} | 5/10 | . by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen |
| | NOTE 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. | 5/12 | . specially modified, e.g. perforated, with granulated surface, with attached pads |
| | | 5/14 | . Fastening means therefor |
| 3/361 | . . by specially-profiled marginal portions of the slabs or sheets | 5/141 | . . {characterised by the location of the fastening means} |
| 2003/3612 | . . . {Separate fastening elements fixed to the roof structure and comprising plastic parts for avoiding thermal bridges} | 5/142 | . . . {along the edge 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} | 5/143 | . . . {in the field of the flexible material} |
| | | 5/144 | . . {Mechanical fastening means} |
| | | 5/145 | . . . {Discrete fastening means, e.g. discs or clips} |
| 2003/3617 | . . . {with locking or snapping edges located in the thickness of the slab or sheet} | 5/146 | . . . {Linear fastening means, e.g. strips} |
| | | 5/147 | . . . {not perforating the flexible material} |
| 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 | 5/148 | . . {fastening by gluing} |
| | | 5/149 | . . {fastening by welding} |
| 3/363 | . . . with snap action (E04D 3/366 takes precedence) | 7/00 | Roof covering {exclusively consisting of} sealing masses applied in situ; Gravelling of flat roofs |
| 3/364 | . . . {by folding of the edges} | 7/005 | . {characterised by loose or embedded gravel or granules as an outer protection of the roof covering} |
| 3/365 | . . by simple overlapping of the marginal portions with use of separate connecting elements, e.g. hooks or bolts for corrugated sheets | 9/00 | Roof covering by using straw, thatch, or like materials (impregnation against incendiary damage B27K) |
| 3/366 | . . by closing the space between the slabs or sheets by gutters, bulges, or bridging elements, e.g. strips | 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} |
| 3/368 | . . by forcing together the marginal portions of adjacent slabs or sheets | 11/002 | . {consisting of two or more layers, at least one of the layers permitting turfing of the roof} |
| 3/369 | . . by welding of the marginal portions of adjacent slabs or sheets {also by soldering, glueing} | 11/005 | . {Supports for elevated load-supporting roof coverings} |
| 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) | 11/007 | . . {Height-adjustable spacers} |
| | | 11/02 | . 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 (gravelling of flat roofs E04D 7/00 ; venting or ventilation E04D 13/17) |
| 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)} | 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}) |
| | | 12/002 | . {Sheets of flexible material, e.g. roofing tile underlay} |
| 3/405 | . . {Wall copings} | 12/004 | . {Battens} |
| | | 12/006 | . . {Batten-supporting means} |

- 12/008 . . . {Ridge-batten brackets}
- 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](#))**
- 13/002 . {Provisions for preventing vegetational growth, e.g. fungi, algae or moss}
- 13/004 . {Protection against birds, mice or the like ([scaring devices for birds in general A01M 29/00](#))}
- 13/006 . {Provisions for detecting water leakage}
- 13/008 . {Provisions for reducing rain noise}
- 13/02 . Roof-covering aspects of dormer windows ([E04D 13/14](#) takes precedence; structures therefor [E04B 7/18](#))
- 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](#)})
- 13/0305 . . {Supports or connecting means for sky-lights of flat or domed shape}
- 13/031 . . . {characterised by a frame for connection to an inclined roof}
- 13/0315 . . . {characterised by a curb frame}
- 13/032 . . {Supports or connecting means for sky-lights of vaulted shape}
- 13/0325 . . {provided with ventilating means ([roof ventilation F24F 7/02](#))}
- 13/033 . . {provided with means for controlling the light-transmission or the heat-reflection, (e.g. shields, reflectors, cleaning devices)}
- 13/0335 . . {Skylight guards, security devices protecting skylights or preventing objects or persons from falling through skylight openings}
- 2013/034 . . {Daylight conveying tubular skylights}
- 2013/0345 . . . {with skylight shafts extending from roof to ceiling}
- 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](#))}
- 13/0351 . . . {the parts pivoting about a fixed axis}
- 13/0352 {the parts being of domed or pyramidal shape}
- 13/0354 {the parts being flat}
- 13/0355 {The parts being of vaulted shape}
- 13/0357 . . . {the parts pivoting about an axis supported on a hinged frame or arms}
- 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}
- 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](#))
- 13/0404 . . {Drainage on the roof surface}
- 13/0409 . . . {Drainage outlets, e.g. gullies}
- 2013/0413 {Strainers for drainage outlets}
- 2013/0418 {with de-icing devices or snow melters}
- 2013/0422 {for draining water above the roof level, e.g. gullies with overflow ports}
- 2013/0427 {with means for controlling the flow in the outlet}
- 13/0431 {with horizontal evacuation over the border of the roof}
- 2013/0436 {with sealing means}
- 2013/044 {on multiple levels}
- 13/0445 . . . {Drainage channels}
- 2013/045 {on inclined roofs}
- 2013/0454 {at the intersection of roof surfaces, e.g. roof valleys}
- 13/0459 . . . {Drainage borders, e.g. dripping edges, gravel stops or dispersers}
- 2013/0463 {Dispersers}
- 2013/0468 {Drip edges}
- 2013/0472 {Gravel stops}
- 13/0477 . . . {Underroof drainage layers ([layers permitting turfing of the roof E04D 11/002](#))}
- 13/0481 . . . {Drainage guiding provisions, e.g. deflectors or stimulation by inclined surfaces}
- 2013/0486 {Deflectors}
- 2013/049 . . . {of condensation water or infiltrated rainwater}
- 2013/0495 . . . {to storage tanks}
- 13/064 . . Gutters ([drainage channels on the roof surface E04D 13/0445](#); [gutters for greenhouses A01G 9/1476](#))
- 13/0641 . . . {Gutter ends}
- 13/0643 . . . {Gutter corners}
- 13/0645 . . . {Connections between gutter and down pipe}
- 13/0646 . . . {made of concrete or stone-like material}
- 13/0648 . . . {comprising provisions for heat insulation, e.g. an insulation layer}
- 13/068 . . . Means for fastening gutter parts together
- 13/0685 {in combination with hanging means}
- 13/072 . . . Hanging means ([in combination with means for fastening gutter parts together E04D 13/0685](#))
- 13/0722 {extending mainly under the gutter}
- 13/0725 {situated above or inside the gutter}
- 13/0727 {situated mainly at the rear side of the gutter}
- 13/076 . . Devices or arrangements for removing snow, ice or debris from gutters or for preventing accumulation thereof
- 13/0762 . . . {De-icing devices or snow melters}
- 13/0765 . . . {Cleaning tools}
- 13/0767 . . . {Strainers at connection between gutter and down pipe}
- 13/08 . . Down pipes; Special clamping means therefor ([clamping pipes in general F16B, F16L](#))
- 2013/0806 . . . {Details of lower end of down pipes, e.g. connection to water disposal system}
- 2013/0813 {Water diverters}
- 2013/082 . . . {Down pipe branches}
- 2013/0826 . . . {Passages of down pipes through walls or floors}
- 2013/0833 . . . {Elbow pieces}
- 2013/084 . . . {Means for fixing down pipes to structure}
- 2013/0846 . . . {Interconnecting down pipe parts}
- 2013/0853 . . . {Valves for controlling the rain water flow}
- 2013/086 . . . {Filters}
- 2013/0866 . . . {Access opening for cleaning; Devices for avoiding cumulation of debris}

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- 2013/0873 . . . {Rain water reservoirs integrated in down pipes}
- 2013/088 . . . {De-icing devices or snow melters}
- 2013/0886 . . . {Devices for preventing climbing on down pipes}
- 2013/0893 . . . {incorporated in building structure}
- 13/10 . Snow traps {; Removing snow from roofs; Snow melters}
- 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](#))}
- 13/106 . . {Snow removing devices (for gutters [E04D 13/076](#))}
- 13/12 . Devices or arrangements allowing walking on the roof or in the gutter
- 13/14 . Junctions of roof sheathings to chimneys or other parts extending above the roof
- 13/1407 . . {for flat roofs}
- 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](#))}
- 2013/1422 . . {Parapet building elements for retaining the roof flashing}
- 13/143 . . with ventilating means {in junctions of roof sheathings to parts extending above the roof}
- 13/147 . . specially adapted for inclined roofs {(trays for cavity walls [E04B 1/70](#))}
- 13/1471 . . . {using a hinge mechanism for adaptation to the inclined roof}
- 13/1473 . . . {specially adapted to the cross-section of the parts extending above the roof}
- 13/1475 {wherein the parts extending above the roof have a generally rectangular cross-section}
- 13/1476 {wherein the parts extending above the roof have a generally circular cross-section}
- 13/1478 . . . {Junctions to walls extending above the roof}
- 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](#))}
- 13/151 . . {Expansion joints for roofs}
- 13/152 . . with ventilating means {in soffits or fascias; (on the eaves of the roof [E04D 13/178](#))}
- 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 (gable tiles [E04D 1/30](#))}
- 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}
- 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](#))}
- 13/1612 . . . {the roof structure comprising a supporting framework of roof purlins or rafters}
- 13/1618 {with means for fixing the insulating material between the roof covering and the upper surface of the roof purlins or rafters}
- 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](#))}
- 13/1631 {the means deriving from the nature or the shape of the insulating material itself}
- 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}
- 13/1643 . . . {the roof structure being formed by load bearing corrugated sheets, e.g. profiled sheet metal roofs}
- 13/165 {Double skin roofs}
- 13/1656 {Closure strips or elements filling the spaces between the corrugated sheets and a supporting wall}
- 13/1662 . . . {Inverted roofs or exteriorly insulated roofs}
- 13/1668 . . . {the insulating material being masses or granules applied *in situ*}
- 13/1675 {on saddle-roofs or inclined roof surfaces}
- 13/1681 . . . {Insulating of pre-existing roofs with or without ventilating arrangements}
- 13/1687 . . {the insulating material having provisions for roof drainage}
- 13/1693 . . . {the upper surface of the insulating material forming an inclined surface}
- 13/17 . Ventilation of roof coverings not otherwise provided for (ventilation of rooms or spaces [F24F](#))
- 13/172 . . {Roof insulating material with provisions for or being arranged for permitting ventilation of the roof covering}
- 13/174 . . {on the ridge of the roof}
- 13/176 . . . {formed by flexible material suitable to be rolled up}
- 13/178 . . {on the eaves of the roof}
- 15/00 Apparatus or tools for roof working**
- 15/003 . {for removing roof material (for floor coverings [E04G 23/006](#))}
- 15/006 . {for cleaning the roof (for cleaning gutters [E04D 13/0765](#); for removing snow from roofs [E04D 13/106](#))}
- 15/02 . for roof coverings comprising tiles, shingles, or like roofing elements {([E04D 15/003](#) takes precedence)}
- 15/025 . . {Templates, gauges or spacers for installing roof tiles or roof laths (templates for rafters [E04G 21/1891](#))}
- 15/04 . for roof coverings comprising slabs, sheets or flexible material
- 2015/042 . . {Fixing to the roof supporting structure}
- 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