E04F  BUILDING

FINISHING WORK ON BUILDINGS, e.g. STAIRS, FLOORS (windows, doors E06B)

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

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<th>IPC Group</th>
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<td>E04F 11/09</td>
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2. 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.

10/00  Sunshades, [e.g. Florentine blinds or jalousies; Outside screens (E06B 9/26 takes precedence)];

Awnings (or baldachins) (for caravans B60P 3/343); (trailer awnings E04H 15/08; for tents E04H 15/58)

10/005 . . . (Rigidly-arranged sunshade roofs with coherent surfaces)

10/02 . . . of flexible canopy materials, e.g. canvas (Baldachins)

10/04 . . . with material fixed on sections of a collapsible frame [especially Florentine blinds]

10/06 . . . comprising a roller-blind with means for holding the end away from a building

10/0603 . . . [with telescopic arms]

10/0607 . . . [with guiding-sections for supporting the movable end of the blind]

10/0611 . . . [with articulated arms supporting the movable end of the blind for deployment of the blind]

10/0614 . . . [whereby the pivot axis of the articulation is parallel to the roller]

10/0618 . . . [whereby the pivot axis of the articulation is perpendicular to the roller]

10/0622 . . . . (whereby the plane defined by three consecutive articulation points of an articulated arm is not parallel to the rotation axis of the roller, e.g. to create a saddle type roof construction or to prevent contact between the cloth and the arm sections)

10/0625 . . . [whereby the roller is installed on the articulated arms]

10/0629 . . . [whereby the arm is of the lazy tong type]

10/0633 . . . [Arrangements for fastening the flexible canopy material to the supporting structure (fastening roller shutters to rollers E06B 9/171)]

10/0637 . . . [with mechanisms for adjusting the inclination of the blind]

10/064 . . . [whereby the mechanism changes the inclination of the blind during unrolling]

10/0644 . . . [with mechanisms for unrolling or balancing the blind]

10/0648 . . . [acting on the roller tube]

10/0651 . . . [acting on the arms]
Treads or may not be concealable or extensible (ship movable stairways, e.g. of loft ladders which may be provided for). Stairways consisting of a plurality of assembled takes precedence.)

Spiral stairways supported by a central column have a central stringer having a load-bearing balustrade part. Movable stairways, e.g. of loft ladders which may or may not be concealable or extensible (ship ladders B63B; stairs for aircraft B64F; escalators or moving walkways B66B).

Collapsible, e.g. folding, telescopic. [folding] [with stringers overlapping when folded] [folding like scissors or accordions] [telescopic]

Tread-and-riser units.

Treads.

Having means to adjust the height, the depth and/or the slope of the stair steps (E04F 11/1042 - E04F 11/116 take precedence).

With an upper layer of fibres or chips, e.g. with additional safety means for children, e.g. wire cables or the like filling elements. Balusters; Grille-type elements. Details of anchoring to the wall or floor. Separate means for spacing balustrades apart.

Filling panels, e.g. concrete, sheet metal panels. Heat exchanger.

Movable stairways, e.g. of loft ladders which may be provided for. Stairways consisting of a plurality of assembled takes precedence.)

Spiral stairways supported by a central column have a central stringer having a load-bearing balustrade part. Movable stairways, e.g. of loft ladders which may or may not be concealable or extensible (ship ladders B63B; stairs for aircraft B64F; escalators or moving walkways B66B).

Collapsible, e.g. folding, telescopic. [folding] [with stringers overlapping when folded] [folding like scissors or accordions] [telescopic]

Tread-and-riser units.

Treads.

Having means to adjust the height, the depth and/or the slope of the stair steps (E04F 11/1042 - E04F 11/116 take precedence).

With an upper layer of fibres or chips, e.g. bonded with synthetic resins.

With an upper layer of organic plastics with or without reinforcements or filling materials.

Composed of several layers, e.g. sandwich panels (layered products in general B32B; producing decorative panels or veneers B44C 5/04).

[Incl. means for fixing to the floor] [between balustrade posts and horizontal or sloping balustrade members] [between balustrade filling members, e.g. balusters or panels, and horizontal or sloping balustrade members] [between balustrade filling members, e.g. panels, and balustrade posts] [with adjustable angle, e.g. pivotal connections]

[Handrails of balustrades; Connections between handrail members] [Lateral displacement] [of variable curvature; flexible] [Balusters; Grille-type elements] [Grille-type elements] [Balusters with means for fixing to the floor] [Separate means for spacing balustrades apart]

[Covering panels for tread restoration] [Surfaces (guard covers of stairs)]

[Balustrades; Handrails (guard-rails on ships B63B; for bridges E01D 19/10; for roads E01F 13/00, E01F 15/00; fences E04H 17/00; safety measures for persons during the construction of buildings E04G 21/32)]

[Handrails mounted on walls, e.g. on the wall side of stairs] [Details of anchoring to the wall] [Balcony guard with additional child safety means] [Handrail members; Connections between handrail members] [Balustrades] [Details of anchoring to the wall or floor] [Covers for the base portions of the balustrade posts]

Connections therefor (E04F 11/1812 and E04F 11/1836 take precedence). [between balustrade posts and horizontal or sloping balustrade members] [between balustrade posts and handrails] [between balustrade filling members, e.g. balusters or panels, and horizontal or sloping balustrade members] [between balustrade filling members, e.g. panels, and balustrade posts] [Handrail members; Connections between handrail members] [Lateral displaced handrail] [of variable curvature; flexible] [Balusters; Grille-type elements] [Grille-type elements] [Balusters with means for fixing to the floor] [Separate means for spacing balustrades apart]

[Covering panels for tread restoration] [Surfaces (guard covers of stairs)]
Coverings or linings, e.g. for walls or ceilings (flooring E04F 15/00; decoration of surfaces, mosaic work B44, e.g. paper-hanging; B44C 7/00; made of webs, e.g. of fabrics or wallpaper, as such, or their manufacturing; D03D, D04G, D04H, D06N, D21H; construction of [false] ceilings E04B 9/00; roofings or similar water-tight coverings against precipitation E04D)

13/02 [made of webs, e.g. of fabrics, or wallpaper, used as coverings or linings (of a number of similar elements carried by a common web E04F 13/0862; paperhanging, tapistry work B44C 7/00)]

13/05 (Stretched foil- or web-like elements attached with edge gripping devices)

13/07 (Outer coverings for walls with ventilating means)

13/08 of plastic materials hardening after applying, e.g. plaster (surface treatment in painting technique B44D; inorganic or bituminous masses C04B; organic plastics C08L; implements for applying plasticised materials E04F 21/02))

13/04 Bases for plaster (sub-ceilings with plaster-carrying means E04B 9/06)

13/05 (Joint tapes)

13/06 (Means for fastening plaster-bases to a supporting structure)

13/07 (Plaster carrying meshes)

13/08 Edge-protecting borders ([borders for joints between plaster layers and window or door frames or like E06B 1/62])

13/09 (for arched or curved edges)

13/06 (for corners)

13/06 (lower edges of outer insulation layers)

13/06 (for expansion joints between two plaster layers)

13/07 (combined with mesh material or the like to allow plaster to bond therewith)

13/07 composed of covering or lining elements; Sub-structures therefor; Fastening means therefor

13/07 composed of specially adapted, structured or shaped covering or lining elements

13/07 for particular building parts, e.g. corners or columns

13/07 (for corners)

13/07 (for columns)

13/07 for accommodating service installations or utility lines, e.g. heating conduits, electrical lines, lighting devices or service outlets (not used; accommodating heating conduits E24D; accommodating electrical cables or lines H02G 3/00; accommodating lighting devices F21V 33/006)

13/07 for insulations or surface protection, e.g. against noise or impact (not used; for insulation, e.g. against noise E04B 1/00)

13/076 characterised by the joints between neighbouring elements, e.g. with joint fillings or with tongue and groove connections (not used, see E04F 13/0889)

13/077 composed of several layers, e.g. sandwich panels (E04F 13/075 takes precedence) (not used, see E04F 13/0866)

13/078 Stretched foil- or web-like elements attached with edge gripping devices (not used, see E04F 13/005)

13/08 composed of a plurality of similar covering or lining elements, (E04F 13/072 takes precedence; borders, skirtings E04F 19/02; [of webs or fabrics E04F 13/002; fixing strips E04F 19/06; separate provisional spacers between adjacent tiles E04F 21/0092; implements or means for setting tiles E04F 21/18])

13/0801 (Separate fastening elements (E04F 13/088, E04F 13/085 take precedence)

13/0803 (with load-supporting elongated furring elements between wall and covering elements)

13/0805 (with additional fastening elements between furring elements and the wall)

13/0807 (adjustable perpendicular to the wall)

13/0808 (adjustable in several directions one of which is perpendicular to the wall)

13/081 (with additional fastening elements between furring elements and covering elements)

13/0812 (fixed by means of spring action)

13/0814 (fixed by means of clamping action)

13/0816 (the additional fastening elements extending into the back side of the covering elements (E04F 13/083 takes precedence))

13/0817 (extending completely through the covering elements)

13/0819 (inserted into grooves in the back side of the covering elements)

13/0821 (the additional fastening elements located in-between two adjacent covering elements)

13/0823 (piercing the side faces of the covering elements)

13/0825 (engaging side holes preformed into the covering elements)

13/0826 (engaging side grooves running along the whole length of the covering elements)

13/0828 (engaging the outer surface of the covering elements, e.g. at the corners)

13/083 (Hooking means on the back side of the covering elements)

13/0832 (without load-supporting elongated furring elements between wall and covering elements)

13/0833 (not adjustable (E04F 13/0857 takes precedence; not used, see subgroups)

13/0835 (the fastening elements extending into the back side of the covering elements (E04F 13/0851 takes precedence)

13/0837 (extending completely through the covering elements)
13/0841 . . . . . . . . [the fastening elements engaging the outer surface of the covering elements, not extending through the covering (E04F 13/0839 and E04F 13/0848 take precedence)]
13/0842 . . . . . . . . [specially adapted for thin sheet-like materials, e.g. sheet-metal or plastics]
13/0844 . . . . . . . . [with means piercing the side faces of the covering elements]
13/0846 . . . . . . . . [the fastening elements engaging holes or grooves in the side faces of the covering elements (E04F 13/0835 and E04F 13/0839 take precedence)]
13/0848 . . . . . . . . [specially adapted for thin sheet-like materials, e.g. sheet-metal or plastics]
13/085 . . . . . . . . . [with means piercing the side faces of the covering elements]
13/0867 . . . . . . . . [having acoustic absorption means on the visible surface]
13/0869 . . . . . . . . [having conduits for fluids]
13/0871 . . . . . . . . [having an ornamental or specially shaped visible surface (E04F 13/0867 takes precedence)]
13/0873 . . . . . . . . [the visible surface imitating natural stone, brick work, tiled surface or the like (E04F 13/105, E04F 13/123, E04F 13/147, E04F 13/165, E04F 13/185 take precedence)]
13/0875 . . . . . . . . [having a basic insulating layer and at least one covering layer]
13/0876 . . . . . . . . . [the covering layer comprising mutual alignment or interlocking means]
13/0878 . . . . . . . . . [the basic insulating layer comprising mutual alignment or interlocking means]
13/088 . . . . . . . . [fixed directly to the wall by means of magnets, hook and loop-type or similar fasteners, not necessarily involving the side faces of the covering element]
13/0882 . . . . . . . . . [by hook and loop-type fasteners]
13/0883 . . . . . . . . . [by magnets]
13/0885 . . . . . . . . [specially adapted for being adhesively fixed to the wall; Fastening means therefor; Fixing by means of plastics materials hardening after application]
13/0887 . . . . . . . . [Adhesive means specially adapted therefor, e.g. adhesive foils or strips]
13/0891 . . . . . . . . [with joint fillings]
13/0892 . . . . . . . . [with means for aligning the outer surfaces of the covering elements (E04F 13/0894 takes precedence)]
13/0894 . . . . . . . . [with tongue and groove connections]
13/0896 . . . . . . . . [with adhesive joining strips (E04F 13/0894, E04F 13/0898 take precedence)]
13/0898 . . . . . . . . [with sealing elements between coverings (sealings of joints between building constructions in general E04B 1/068)]
13/0899 . . . . . . . . [split into individual elements by means of clamping action]
13/10 . . . . . . . . . [with an outer layer of wood (E04F 13/0864 takes precedence)]
13/105 . . . . . . . . [with an outer layer imitating natural stone, brick work, tiled surface or the like]
13/12 . . . . . . . . . [of metal (E04F 13/0864 takes precedence)]
13/126 . . . . . . . . [with an outer layer of wire mesh, wire grid or the like, e.g. gabions]
13/14 . . . . . . . . . [stone or stone-like materials, e.g. ceramics, of glass (E04F 13/0864 takes precedence); producing shaped elements from concrete, ceramic compositions or other stone-like materials B28B; prefabricated panels in general E04C 2/00)]
13/141 . . . . . . . . [with an outer layer of concrete (E04F 13/147 takes precedence)]
13/142 . . . . . . . . [with an outer layer of ceramics or clays]
13/144 . . . . . . . . [with an outer layer of marble or other natural stone]
13/145 . . . . . . . . [with an outer layer of glass]
13/147 . . . . . . . . [with an outer layer imitating natural stone, brick work or the like]
13/148 . . . . . . . . [with an outer layer of asbestos cement or the like]
13/15 . . . . . . . . [characterised by the use of glass elements, i.e. wherein an outer layer is not of glass (E04F 13/145 takes precedence)]
13/16 . . . . . . . . [of fibres or chips, e.g. bonded with synthetic resins, or with an outer layer of fibres or chips (E04F 13/0864 takes precedence)]
13/165 . . . . . . . . [with an outer layer imitating natural stone, brick work, tiled surface or the like]
13/18 . . . . . . . . [of organic plastics with or without reinforcements or filling materials (of plastic-bound fibres or chips E04F 13/16) or with an outer layer of organic plastics with or without reinforcements or filling materials; plastic tiles (E04F 13/0864 takes precedence)]
13/185 . . . . [with an outer layer imitating natural stone, brickwork, tiled surface or the like]
13/21 . . . Fastening means specially adapted for covering or lining elements [(not used, see E04F 13/0801)]
13/22 . . . Anchors, support angles or consoles [(not used, see E04F 13/0801)]
13/23 . . . adjustable [(not used, see E04F 13/0801)]
13/24 . . . Hidden fastening means on the rear of the covering or lining elements (E04F 13/30 takes precedence) [(not used, see E04F 13/0801)]
13/25 . . . adjustable [(not used, see E04F 13/0801)]
13/26 . . . Edge engaging fastening means, e.g. clamps, clips or border profiles [(not used, see E04F 13/0801)]
13/28 . . . adjustable [(not used, see E04F 13/0801)]
13/30 . . . Magnetic fastening means [(not used, see E04F 13/0883)]

15/00  Flooring (stair treads E04F 11/104; coverings not specially adapted for floors E04F 13/00; borders, skirtings E04F 19/02; [implements for laying flooring E04F 21/20]; gratings for cleaning soles of footwear A47L 23/24; [built-in gratings E04F 19/10; removing floor coverings E04G 23/00; carpets A47G 27/00;] of similar materials to roads E01C; basic or rough floors [structural floors] E04B 5/00) similar materials to roads E01C

15/02 . Flooring or floor layers composed of a number of similar elements (of webs E04F 15/16)
15/02005 . . . (Construction of joints, e.g. dividing strips (E04F 15/024, E04F 15/04, E04F 15/06, E04F 15/10 and E04F 15/14 take precedence; separate provisional spacers E04F 21/0092))
15/02011 . . . [with joint fillings integrated in the flooring elements]
15/02016 . . . [with sealing elements between flooring elements (sealings of joints between building constructions in general E04B 1/68)]
15/02022 . . . [with means for aligning the outer surfaces of the flooring elements (E04F 15/02038 takes precedence)]
15/02027 . . . [Means for spacing the flooring from an adjoining wall]
15/02033 . . . [Joints with beveled or recessed upper edges]
15/02038 . . . [characterised by tongue and groove connections between neighbouring flooring elements]
15/02044 . . . [Separate elements for fastening to an underlayer (E04F 15/02133, E04F 15/0215 take precedence)]
15/0205 . . . [with load-supporting elongated furring elements between the flooring elements and the underlayer]
15/02055 . . . [with additional supporting elements between furring elements and flooring elements]
15/02061 . . . [adjustable perpendicular to the underlayer]
15/02066 . . . [with additional fastening elements between furring elements and flooring elements]
15/02072 . . . [the additional fastening elements extending into the back side of the flooring elements (E04F 2015/021 takes precedence)]
15/02077 . . . [the additional fastening elements located in-between two adjacent flooring elements]
15/02447 . . . [Supporting structures]
15/02452 . . . . [Details of junctions between the supporting structures and the panels or a panel-supporting framework]
15/02458 . . . . [Framework supporting the panels]
15/02464 . . . . [Height adjustable elements for supporting the panels or a panel-supporting framework]
15/0247 . . . . [Screw jacks]
15/02476 . . . . [height-adjustable from the upper side of the floor]
15/02482 . . . . . [with a variable angle between panel and support]
15/02488 . . . . . (filled with material hardening after application)
15/02494 . . . . . [with a plurality of base plates or like, each base plate having a plurality of pedestals upstanding therefrom to receive the floor panels]
15/04 . . . . only of wood {or with a top layer of wood}, e.g. with wooden {or metal} connecting members (rollable parquet E04F 15/16)
15/041 . . . . with a top layer of wood in combination with a lower layer of other material)
15/042 . . . . [the lower layer being of fibrous or chipped material, e.g. bonded with synthetic resins]
15/043 . . . . [the lower layer being of organic plastic with or without reinforcements or filling materials]
15/045 . . . . [Layered panels only of wood]
15/046 . . . . . [Plywood panels]
15/047 . . . . [with a butcher-block like top surface]
15/048 . . . . [with a top surface of assembled elongated wooden strip type]
15/06 . . . . of metal, whether or not in combination with other material (gratings as building elements E04C 2/42 {; of elements with a metal upper layer; E04F 15/02405 takes precedence; metal treads E04F 11/112})
15/08 . . . . only of stone or stone-like material, e.g. {ceramics}, concrete, of glass {or with a top layer of stone or stone-like material, e.g. ceramics, concrete or glass (E04F 15/02005 takes precedence)}
15/082 . . . . [with a top layer of stone or stone-like material, e.g. ceramics, concrete or glass in combination with a lower layer of other material]
15/085 . . . . [The lower layer being of fibrous or chipped material, e.g. bonded with synthetic resins]
15/087 . . . . [The lower layer being of organic plastic with or without reinforcements or filling materials]
15/10 . . . . of other materials, e.g. fibrous or chipped materials, organic plastics, magnesite {tiles}, hardboard {, or with a top layer of other materials]
15/102 . . . . [of fibrous or chipped materials, e.g. bonded with synthetic resins]
15/105 . . . . [of organic plastics with or without reinforcements or filling materials]
15/107 . . . . [composed of several layers, e.g. sandwich panels (layered products in general B32B; producing decorative panels or veneers B44C 5/04)]

15/12 . . . Flooring or floor layers made of masses in situ, e.g. seamless magnesite floors, terrazzo {gypsum floors} (inorganic or bituminous masses C04B; plastic masses C08L)
15/123 . . . [Lost formworks for producing hollow floor screed layers, e.g. for receiving installations, ducts, cables (structural floors E04B 5/00; filling elements for building-up floors E04B 5/26; installation of cables, lines or protective tubing in floors H02G 3/28)]
15/126 . . . . [Terrazzo floors]
15/14 . . . . Construction of joints, e.g. dividing strips (E04F 15/02005 takes precedence;] sealing joints not restricted to flooring E04B 1/68 {, construction of joints in roads or airfields E01C 11/02})
15/142 . . . . [Dividing strips or boundary strips]
15/145 . . . . . [adjustable in height]
15/147 . . . . . [interconnected to form a grid-like structure]
15/16 . . . . . Flooring, e.g. parquet on flexible web, laid as flexible webs; Wells specially adapted for use as flooring; Parquet on flexible web) (resiliently-mounted floors, e.g. sprung floors, E04F 15/22; linoleum D06N; carpets A47G 27/00)]
15/163 . . . . . [Webs specially adapted for use as finishing layers]
15/166 . . . . . [Flooring consisting of a number of elements carried by a common flexible web, e.g. rollable parquet]
15/18 . . . . Separately-laid insulating layers; Other additional insulating measures; Floating floors (insulating of buildings in general E04B 1/62)
15/181 . . . . . [Insulating layers integrally formed with the flooring or the flooring elements]
15/182 . . . . . [Underlayers coated with adhesive or mortar to receive the flooring]
15/183 . . . . . . [for areas prone to frost damage, e.g. for balconies or terraces]
15/185 . . . . . [Underlayers in the form of studded or ribbed plates]
15/186 . . . . . [Underlayers covered with a mesh or the like]
15/187 . . . . . [Underlayers specially adapted to be laid with overlapping edges]
15/188 . . . . . [Edge insulation strips, e.g. for floor screed layers (boundary strips in layers made of masses in situ E04F 15/142)]
15/20 . . . . . for sound insulation
15/203 . . . . . (Separately-laid layers for sound insulation)
15/206 . . . . . [Layered panels for sound insulation]
15/22 . . . . . Resiliently-mounted floors, e.g. sprung floors (laid as webs E04F 15/16)
15/225 . . . . . (Shock absorber members therefor)
1700 . Vertical ducts; Channels, e.g. for drainage (pipes in general F16L; pipe-line systems F17D {; drainage devices in floors E03F 5/04; roof drainage E04D 13/04})
17005 . . . . [Lift shafts]
for carrying away waste gases, e.g. flue gases (free-standing chimneys E04H 12/28; connections between fireplace and chimney, chimney fittings, covers for cleaning holes of chimneys F23L; chimney tops F23L); Building elements specially designed therefor, e.g. shaped bricks or sets thereof [(cok-ovens C10B; working measures on existing vertical ducts E04G 23/02; apparatus for inserting new lining elements in existing ducts E04G 21/16; metallic chimneys, linings, joints and spacers therefor F23L 11/00, F23L 13/00)]

.. [made of masonry, concrete or other stone-like material; Insulating measures and joints therefor]

.. [Exterior cladding, e.g. of chimney parts extending above the roof; Rain covers for chimney tops without draught-inducing aspects (inducing draught in chimneys F23L 17/00)]

.. Air-ducts or air channels [(heating in general F24; ventilating rooms in general F24F)]

.. Light shafts, e.g. for cellars

.. for receiving utility lines, e.g. cables, pipes (covers giving access to the ducts or channels, covers of inspection holes E04F 19/08)

.. Arrangements in buildings for the disposal of refuse (refuse bins, gathering or removal of refuse B65F)

.. Chutes

.. [Cleaning or disinfecting thereof]

.. [with water flushing]

Other details of constructional parts for finishing work on buildings (ladders, e.g. climbing irons, E06C 9/04)

.. [Chimney mantel pieces]

.. Borders; Finishing strips, e.g. beadings; Light covers (for protecting edges of plaster E04F 13/06)

.. [for use at vertical intersections of walls (E04F 19/026 takes precedence)]

.. [for outside use, e.g. imitating brickwork]

.. [specially adapted for cushioning impacts]

.. [used at protruding corners]

.. for use between floor or ceiling and wall, e.g. skirtings

.. [characterised by the material]

.. [of wood]

.. [of metal]

.. [of stone or stone like material, e.g. ceramics, concrete; of glass]

.. [of organic plastics with or without reinforcements or filling materials]

.. [with a integrally formed hinge]

.. [of two or more materials]

.. [between ceiling and wall]

.. [with conduits]

.. [Ventilating plinths]

.. [Hygienic or watertight plinths]

.. [with decorative effects]

.. [characterised by the fixing method (not used, see subgroups)]

.. [Plinths fixed by snap-action in a direction perpendicular to the wall]

.. [Plinths fixed by hooking in a direction parallel to the wall]

.. [Plinths fixed by means of magnets, hook and loop-type or similar fasteners]

.. [Plinths fixed by means of adhesive]

.. [Skirtings or crown mouldings with a separate cladding strip]

.. [Corner filling pieces]

.. [Plinths specially adapted for joining wall coverings to floor surfaces]

.. [Plinths fixed around wall openings or around corners of walls]

.. specially designed for securing panels [or masking the edges of wall- or floor-covering elements (E04F 19/022, E04F 19/026 and E04F 19/04 take precedence)]

.. [used to finish off an edge or corner of a wall or floor covering area (in connection with floor fabrics A47G 27/045; sealings between walls and baths A47K 3/008)]

.. [used between similar elements (separate provisional spacers E04F 21/002)]

.. [for simultaneously securing panels having different thicknesses]

.. [in corners]

.. [Finishing profiles with a T-shaped cross-section or the like]

.. [fixed onto a base profile by means of a separate connector]

.. [with means preventing a tipping movement]

.. [with means allowing a tipping movement]

.. [Built-in cupboards; Masks of niches; Covers of holes enabling access to installations ((inspection openings in bathtub aprons A47K 3/1615; covers for electrical distribution boxes H02G 3/14; movable ceiling parts E04B 9/003; removable wall partitions E04B 2/74; ) clean-out doors of chimneys F23L)]

.. [Covers with fixing means providing for snap locking]

.. [Covers with magnetic fixing means]

.. [Built-in gratings, e.g. foot-scraper]

Implements for finishing work on buildings (for working or treating building elements of stone or stone-like material B28D; designed specifically for special details provided for in the other groups of this subclass, see the relevant groups for the details [working measures on existing buildings E04G 23/00; measuring angles or linear dimensions in general G01B, G01C; measuring inclination, e.g. by clinometers or levels G01C 9/00; reference lines, planes or sectors, generated by active optical means G01C 15/004])

.. [for mounting doors, windows or frames; their fitting (door-lifters B66F 15/00)]

.. [for mounting frames]

.. [for mounting door leaves, window sashes or the like]

.. [for marking doors, windows or frames (templates for marking the position of hinges E05D 11/0009; templates for marking the position of doorlocks E05B 17/00)]

.. [for fitting sealing strips or like]

.. [for fitting sealing strips or like]

.. [for reshaping butt joints between adjacent panels, e.g. drywall panels (E04F 21/163 takes precedence)]

.. [for installing edge-protecting borders]

.. [with crimping means]
for finishing joints, e.g. implements for raking B44; applying liquids or other fluent materials to surfaces, in general B05

21/026 . . . (for applying adhesive or joint compound to joint tapes, in particular drywall tapes (joint tapes E04F 13/042; drywall tapper tools E04F 21/1657))

21/04 . . . Patterns or templates; Jointing rulers (profile trowels E04F 21/16)

21/05 . . . Supports for jointing rulers

21/06 . . . Implements for applying plaster, insulating material, or the like (finishing E04F 21/16)

21/08 . . . Mechanical implements (E04F 21/14 takes precedence; spraying in general B05B; sand-blasting B24C)

21/085 . . . (for filling building cavity walls with insulating materials)

21/10 . . . centrifugally acting

21/12 . . . acting by gas pressure, e.g. steam pressure

21/14 . . . in shafts, e.g. chimneys

21/16 . . . Implements for after-treatment of plaster or the like (before it has hardened or dried), e.g. smoothing-tools, profile trowels (E04F 21/04, E04F 21/165 take precedence)

21/161 . . . [Trowels]

21/162 . . . [with a blade having a notched or toothed edge]

21/163 . . . [with exchangeable blades]

21/165 . . . for finishing joints, e.g. implements for raking or filling joints, joiners (bricklayers’ tools E04G 21/16; repairing, e.g. filling cracks, E04G 23/02; wallpaper scrapers or the like B44C 7/02; implements for cleaning joints E04F 13/03)

21/1652 . . . (for smoothing and shaping joint compound to a desired contour)

21/1655 . . . (for finishing corner joints)

21/1657 . . . (for applying tape to joints, e.g. drywall taper tools)

21/18 . . . for setting wall or ceiling slabs or plates (tools for mosaic work B44C)

21/1805 . . . (ceiling panel lifting devices)

21/1811 . . . (with hand-driven crank systems, e.g. rope, cable or chain winding or rack-and-pinion mechanisms (E04F 21/1816, E04F 21/1822 and E04F 21/1827 take precedence))

21/1816 . . . (fluid pressure-operated (E04F 21/1822 and E04F 21/1827 take precedence))

21/1822 . . . (with pivotally mounted arms)

21/1827 . . . [Lazy-tongs mechanisms]

21/1833 . . . [spring-force actuated]

21/1838 . . . (for setting a plurality of similar elements (E04F 21/1805 and E04F 21/1834 take precedence; separate provisional spacers E04F 21/0092))

21/1844 . . . (by applying them one by one)

21/185 . . . [Temporary edge support brackets]

21/1855 . . . [of elongated elements, e.g. sidings]

21/1861 . . . (for setting insulating panels)

21/1866 . . . (using magnets, hook and loop-type fastener or similar means)

21/1872 . . . (using suction-cups)

21/1877 . . . [Leveling devices]

21/1883 . . . (by simultaneously applying several elements, e.g. templates)

21/1888 . . . (using suction-cups)

21/1894 . . . [Lever-type lifters gripping the bottom edge of wall panels (door lifters B66F 15/00)]

21/20 . . . for laying flooring (made of similar material to roads or pavements E01C; arrangements for removing of previously fixed floor covering E04G 23/00))

21/22 . . . [of single elements, e.g. flooring cramps {flexible webs (cutting tiles B28D 1/225)]

21/24 . . . of masses made in situ, e.g. smoothing tools (E04F 21/04 takes precedence; finishing of concrete roads or pavings E01C 19/40; devices for levelling concrete floors E04G 21/10; devices for solidifying concrete floors by vibrating E04G 21/066)

21/241 . . . [Elongated smoothing blades or plates, e.g. screed apparatus]

21/242 . . . [with vibrating means, e.g. vibrating screeds]

21/244 . . . [with means to adjust the working angle of the leveling blade or plate]

21/245 . . . [Rotary power trowels, i.e. helicopter trowels]

21/247 . . . [used by an operator sitting on the trowel, i.e. ride-on power trowels]

21/248 . . . [used by an operator walking behind the trowel, i.e. walk-behind power trowels]

21/26 . . . for mounting staircases, e.g. tools for marking steps

21/28 . . . for glazing (glass cutters C03B 33/10)

21/30 . . . [Putty squeezers or guns {not used, see B05C 17/00}]

21/32 . . . [Putty knives; Putty removers]

2201/00 Joining sheets or plates or panels

2201/00 Joining sheets, plates or panels with edges in abutting relationship

2201/0107 . . . by moving the sheets, plates or panels substantially in their own plane, perpendicular to the abutting edges

2201/0115 . . . with snap action of the edge connectors

2201/0123 . . . by moving the sheets, plates or panels parallel to the abutting edges

2201/013 . . . with snap action of the edge connectors

2201/0138 . . . by moving the sheets, plates or panels perpendicular to the main plane

2201/0146 . . . with snap action of the edge connectors

2201/0153 . . . by rotating the sheets, plates or panels around an axis which is parallel to the abutting edges, possibly combined with a sliding movement

2201/0161 . . . with snap action of the edge connectors
2201/0169 . . . by rotating the sheets, plates or panels around an axis which is perpendicular to the abutting edges and parallel to the main plane, possibly combined with a sliding movement

2201/0176 . . . with snap action of the edge connectors

2201/0184 . . . by rotating the sheets, plates or panels around an axis which is perpendicular to the abutting edges and perpendicular to the main plane, possibly combined with a sliding movement

2201/0192 . . . with snap action of the edge connectors

2201/02 . . . Non-undercut connections, e.g. tongue and groove connections

2201/021 . . . with separate protrusions

2201/022 . . . with tongue or grooves alternating longitudinally along the edge

2201/023 . . . with a continuous tongue or groove

2201/025 . . . with tongue and grooves alternating transversally in the direction of the thickness of the panel, e.g. multiple tongue and grooves oriented parallel to each other

2201/026 . . . with rabbets, e.g. being stepped

2201/027 . . . connected by tongues and grooves, the centerline of the connection being inclined to the top surface

2201/028 . . . connected by tongues and grooves with triangular shape

2201/03 . . . Undercut connections, e.g. using undercut tongues or grooves

2201/035 . . . Dovetail connections

2201/04 . . . Other details of tongues or grooves

2201/041 . . . Tongues or grooves with slits or cuts for expansion or flexibility

2201/042 . . . with grooves positioned on the rear-side of the panel

2201/043 . . . with tongues and grooves being formed by projecting or recessed parts of the panel layers

2201/044 . . . with tongues or grooves comprising elements which are not manufactured in one piece with the sheets, plates or panels but which are permanently fixedly connected to the sheets, plates or panels, e.g. at the factory (for separate tongues E04F 2201/0523)

2201/045 . . . wherein the elements are made of wood

2201/046 . . . wherein the elements are made of metal

2201/047 . . . wherein the elements are made of stone or stone like material, e.g. ceramics, concrete; of glass

2201/048 . . . wherein the elements are made of fibres or chips, e.g. bonded with synthetic resins

2201/049 . . . wherein the elements are made of organic plastics with or without reinforcements or filling materials

2201/05 . . . Separate connectors or inserts, e.g. pegs, pins, keys or strips

2201/0505 . . . Pegs or pins

2201/0511 . . . Strips or bars, e.g. nailing strips

2201/0517 . . . U- or C-shaped brackets and clamps

2201/0523 . . . Separate tongues; Interlocking keys, e.g. joining mouldings of circular, square or rectangular shape

2201/0529 . . . the interlocking key acting as a dovetail-type key

2201/0535 . . . adapted for snap locking

2201/0541 . . . adapted to be moved along the joint edge

2201/0547 . . . adapted to be moved perpendicular to the joint edge

2201/0552 . . . adapted to be rotated around an axis parallel to the joint edge

2201/0558 . . . adapted to be rotated around an axis perpendicular to the joint edge

2201/0564 . . . depending on the use of specific materials

2201/057 . . . of wood

2201/0576 . . . of metal

2201/0582 . . . of fibres or chips, e.g. bonded with synthetic resins

2201/0588 . . . of organic plastics with or without reinforcements or filling materials

2201/0594 . . . Hinge-like connectors

2201/06 . . . Magnets

2201/07 . . . with connections using a special adhesive material

2201/08 . . . hook and loop-type fastener or similar fixing means

2201/09 . . . Puzzle-type connections for interlocking male and female panel edge-parts

2201/091 . . . with the edge-parts forming part of the panel body

2201/093 . . . with the edge-parts being separate elements not being part of the panel body

2201/095 . . . with both connection parts, i.e. male and female connection parts alternating on one edge

2201/096 . . . with only one type of connection parts, i.e. with male or female on one edge

2201/098 . . . wherein the interlocking male and female edge-parts have a dovetail, mushroom or similar shape

2203/00 Specially structured or shaped covering, lining or flooring elements not otherwise provided for

2203/02 . . . having particular shapes, other than square or rectangular, e.g. triangular, hexagonal, circular, irregular

2203/023 . . . having triangular shapes

2203/026 . . . having hexagonal shapes

2203/04 . . . comprising a plurality of internal elongated cavities arranged in substantially parallel rows

2203/06 . . . comprising two layers fixedly secured to one another, in offset relationship in order to form a rebate

2203/065 . . . in offset relationship longitudinally as well as transversely

2203/08 . . . with a plurality of grooves or slits in the back side, to increase the flexibility or bendability of the elements

2290/00 Specially adapted covering, lining or flooring elements not otherwise provided for

2290/02 . . . for accommodating service installations or utility lines, e.g. heating conduits, electrical lines, lighting devices or service outlets

2290/023 . . . for heating

2290/026 . . . for lighting

2290/04 . . . for insulation or surface protection, e.g. against noise, impact or fire

2290/041 . . . against noise

2290/042 . . . with a facing or top layer for sound insulation

2290/043 . . . with a bottom layer for sound insulation

2290/044 . . . against impact

2290/045 . . . against fire

2290/046 . . . with a facing or top layer for fire insulation

2290/047 . . . with a bottom layer for fire insulation

2290/048 . . . against static electricity