E04B  GENERAL BUILDING CONSTRUCTIONS; WALLS, e.g. PARTITIONS; ROOFS; FLOORS; CEILINGS; INSULATION OR OTHER PROTECTION OF BUILDINGS
(border constructions of opening in walls, floors or ceilings E06B 1/00; {electromagnetic shielding H05K 9/0001})

NOTE
In this subclass, the following term is used with the meaning indicated:
• “ceiling” includes all the finishing material concealing the underside of the load-carrying ceiling structure or roof structure.

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:
   - E04B 1/682 covered by E04B 1/68
   - E04B 1/684 covered by E04B 1/68
   - E04B 1/686 covered by E04B 1/68
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.

1/00  Constructions in general; Structures which are not restricted either to walls, e.g. partitions, or floors or ceilings or roofs (scaffolds, shutterings E04G; structures specially adapted for buildings for special purposes, general layout of buildings, e.g. modular co-ordination, E04H; the particular parts of buildings, see the relevant groups for those parts)

1/007  . [Base structures; Cellars]
1/0015  . {Cellars constructed from prefabricated units}
1/0023  . {Building characterised by incorporated canalisations (E04B 1/34869, E04C 1/01, E04C 2/52, E04F 17/00 take precedence; canalisations per se F16L; conducts for ventilation, heating systems or air-conditioning F28)}
1/003  . [Balconies; Decks]
1/0038  . {Anchoring devices specially adapted therefor with means for preventing cold bridging}
1/0046  . {Loggias}
2001/0053  . {Buildings characterised by their shape or layout grid}
2001/0061  . {Buildings with substantially curved horizontal cross-section, e.g. circular}
2001/0069  . {Prismatic shaped buildings with substantially triangular vertical cross-section}
2001/0076  . {Buildings with specific right-angled horizontal layout grid}
2001/0084  . {Buildings with non right-angled horizontal layout grid, e.g. triangular or polygonal}
2001/0092  . {Small buildings with hexagonal or similar horizontal cross-section}
1/02  . Structures consisting primarily of load-supporting, block-shaped, or slab-shaped elements (E04B 1/32 - E04B 1/36 take precedence)
1/04  . the elements consisting of concrete, e.g. reinforced concrete, or other stone-like material
1/043  . . {Connections specially adapted therefor}
1/046  . . . {using reinforcement loops protruding from the elements}
1/06  . . the elements being prestressed
1/08  . . the elements consisting of metal
1/10  . . the elements consisting of wood
1/12  . . the elements consisting of other material
1/14  . . the elements being composed of two or more materials (of reinforced concrete E04B 1/04)
1/16  . Structures made from masses, e.g. of concrete, cast or similarly formed in situ with or without making use of additional elements, such as permanent forms, substructures to be coated with load-bearing material (E04B 1/32 - E04B 1/36 take precedence)
1/161  . {with vertical and horizontal slabs, both being partially cast in situ}
1/162  . . {with a central core, used as form, in order to form a continuous concrete shell}
1/163  . . {with vertical and horizontal slabs, only the vertical slabs being partially cast in situ (E04B 2/86 takes precedence)}
1/164  . . {with vertical and horizontal slabs, only the horizontal slabs being partially cast in situ (E04B 1/161, E04B 1/163 and E04B 1/164 take precedence)}
1/165  . . {with elongated load-supporting parts, cast in situ (E04B 1/165, E04B 1/165 and E04B 1/164 take precedence)}
1/166  . . {with curved surfaces, at least partially cast in situ in order to make a continuous concrete shell structure (E04B 1/169 takes precedence)}
1/167  . . {with permanent forms made of particular materials, e.g. layered products}
1/168  . . {flexible}
1/169 . . . {inflatable}
1/18 . Structures comprising elongated load-supporting parts, e.g. columns, girders, skeletons (E04B 1/32 - E04B 1/36 take precedence; elongated load-supporting parts as elements, trusses, truss-like structures E04C 3/00)
1/185 . . . {Connections not covered by E04B 1/21 and E04B 1/2403, e.g. connections between structural parts of different material}
1/19 . Three-dimensional framework structures { (folded structures and grid-like formations acting as shell structures E04B 7/10) }
1/1903 . . . {Connecting nodes specially adapted therefor}
1/1906 . . . { with central spherical, semispherical or polyhedral connecting element }
1/1909 . . . { with central cylindrical connecting element }
1/1912 . . . { with central cubical connecting element }

NOTE
Subgroup E04B 1/19 takes precedence over subgroups E04B 1/20 - E04B 1/30

2001/1915 . . . { with strut engaging means at the edges of the cube }
2001/1918 . . . { with connecting nodes having flat radial connecting surfaces }
2001/1921 . . . { with connecting nodes having radial connecting stubs }
2001/1924 . . . { Struts specially adapted therefor }
2001/1927 . . . { of essentially circular cross section }
2001/193 . . . { with flattened connecting parts, e.g. ends }
2001/1933 . . . { of polygonal, e.g. square, cross section }
2001/1936 . . . { Winged profiles, e.g. with a L-, T-, U- or X-shaped cross section }
2001/1939 . . . { Inflatable struts }
2001/1942 . . . { Struts adjustable in length }
2001/1945 . . . { Wooden struts }
2001/1948 . . . { Concrete struts }
2001/1951 . . . { uninterrupted struts situated in the outer planes of the framework }
2001/1954 . . . { uninterrupted struts connecting alternately with the outer planes of the framework, e.g. zig-zagging struts }
2001/1957 . . . {Details of connections between nodes and struts }
2001/196 . . . { Screw connections with axis parallel to the main axis of the strut }
2001/1963 . . . { Screw connections with axis at an angle, e.g. perpendicular, to the main axis of the strut }
2001/1966 . . . { Formlocking connections other than screw connections }
2001/1969 . . . { Ball and socket type connection }
2001/1972 . . . { Welded or glued connection }
2001/1975 . . . { Frameworks where the struts are directly connected to each other, i.e. without interposed connecting nodes or plates }
2001/1978 . . . { Frameworks assembled from preformed subframes, e.g. pyramids }
2001/1981 . . . { characterised by the grid type of the outer planes of the framework }
2001/1984 . . . { rectangular, e.g. square, grid }
2001/1987 . . . { triangular grid }
2001/199 . . . { Details of roofs, floors or walls supported by the framework }
2001/1993 . . . { Details of framework supporting structure, e.g. posts or walls }
2001/1996 . . . { Tensile-integrity structures, i.e. structures comprising compression struts connected through flexible tension members, e.g. cables }
1/20 . . . the supporting parts consisting of concrete, e.g. reinforced concrete, or other stonelike material
1/21 . . . { Connections specially adapted therefor }
1/215 . . . . . { comprising metallic plates or parts }
1/22 . . . with parts being prestressed
1/24 . . . the supporting parts consisting of metal
1/2403 . . . { Detailsi of the elongated load-supporting parts }
2001/2406 . . . { Connection nodes }
2001/2409 . . . { Hooks, dovetails or other interlocking connections }
2001/2412 . . . { Keyhole connections }
2001/2415 . . . { Brackets, gussets, joining plates }
2001/2418 . . . { Details of bolting }
2001/2421 . . . { Socket type connectors }
2001/2424 . . . { Clamping connections other than bolting or riveting }
2001/2427 . . . { using adhesives or hardening masses }
2001/243 . . . { Assembling by non resilient deformation other than riveting }
2001/2433 . . . { using a removable key }
2001/2436 . . . { Snap-fit connections }
2001/2439 . . . { Adjustable connections, e.g. using elongated slots or threaded adjustment elements }
2001/2442 . . . { Connections with built-in weakness points }
2001/2445 . . . { Load-supporting elements with reinforcement at the connection point other than the connector }
2001/2448 . . . { Connections between open section profiles }
2001/2451 . . . { Connections between closed section profiles }
2001/2454 . . . { Connections between open and closed section profiles }
2001/2457 . . . { Beam to beam connections }
2001/246 . . . { Post to post connections }
2001/2463 . . . { Connections to foundations }
2001/2466 . . . { Details of the elongated load-supporting parts }
2001/2469 . . . { Profile with an array of connection holes }
2001/2472 . . . { Elongated load-supporting part formed from a number of parallel profiles }
2001/2475 . . . { Profile with an undercut grooves for connection purposes }
2001/2478 . . . { Profile filled with concrete }
2001/2481 . . . { Details of wall panels }
2001/2484 . . . { Details of floor panels or slabs }
2001/2487 . . . { Portico type structures }
2001/249 . . . { Structures with a sloping roof }
2001/2493 . . . { Structures with a vaulted roof }
2001/2496 . . . { Shear bracing therefor }
1/26 . . . the supporting parts consisting of wood
1/2604 . . . { Connections specially adapted therefor (shear dowels E04B 1/466, E04B 1/493) }
1/2608 . . . . [Connectors made from folded sheet metal (E04B 1/2612 takes precedence)]
1/2611 . . . . . [Joist hangers]
2001/2612 . . . . [Hinged connections of wooden members]
2001/262 . . . . [Connection node with interlocking of specially shaped wooden members, e.g. puzzle type connection]
2001/262 . . . . [alternative use]
2001/2624 . . . . . [with dovetail-type connections]
2001/2628 . . . . [Interlocking connectors, e.g. with hooks or dovetails, added to the elongated wooden members]
2001/2632 . . . . . [with dovetail-type connections]
2001/2636 . . . . . [with connectors located in slots of the wooden members]
2001/264 . . . . . [Glued connections]
2001/2644 . . . . . [Brackets, gussets or joining plates (E04B 2001/2628 takes precedence)]
2001/2648 . . . . . [located in slots of the elongated wooden members]
2001/2652 . . . . [Details of nailing, screwing, or bolting]
2001/2656 . . . . . [Bent or curved bolts]
2001/266 . . . . . [Socket type connectors]
2001/2664 . . . . . . [using a removable key]
2001/2664 . . . . . . [for members with a round cross-section]
2001/2668 . . . . . . [for members formed from a number of parallel sections]
2001/2672 . . . . . . [Connector nodes (E04B 2001/262 takes precedence)]
2001/2676 . . . . . . [Connection to foundations]
2001/268 . . . . . . [with metal connectors]
2001/2688 . . . . . . . [self adjusting, e.g. for compensation of shrinkage]
2001/2692 . . . . . . [End to end connections of elongated members along their common longitudinal axis]
2001/2696 . . . . . . . [Shear bracing]
1/28 . . . . the supporting parts consisting of other material
1/30 . . . . . . the supporting parts being composed of two or more materials; Composite steel and concrete constructions (of reinforced concrete E04B 1/20)
1/32 . . . . . . Arched structures;Vaulted structures; Folded structures (E04B 1/34728 takes precedence; vaulted roofs E04B 7/08)
1/3205 . . . . . . [Structures with a longitudinal horizontal axis, e.g. cylindrical or prismatic structures]
1/3211 . . . . . . . [Structures with a vertical rotation axis or the like, e.g. semi-spherical structures]
2001/3217 . . . . . . . [Auxiliary supporting devices used during erection of the arched structures]
2001/3223 . . . . . . . [Theorical polygonal geometry therefor]
2001/3229 . . . . . . . [constructed using a boom]
2001/3235 . . . . . . . [having a grid frame]
2001/3241 . . . . . . . [Frame connection details]
2001/3247 . . . . . . . [Nodes]
2001/3252 . . . . . . . [Covering details]
2001/3258 . . . . . . . [comprised entirely of a single self-supporting panel]
2001/3264 . . . . . . . [hardened in situ]
2001/327 . . . . . . . . [comprised of a number of panels or blocs connected together forming a self-supporting structure]
2001/3276 . . . . . . . . [Panel connection details]
1/348 Structures composed of units comprising at least considerable parts of two sides of a room, e.g. box-like or cell-like units closed or in skeleton form

1/34807 (Elements integrated in a skeleton)
1/34815 (Elements not integrated in a skeleton)
1/34823 (the supporting structure consisting of concrete)
1/3483 (the supporting structure consisting of metal)
1/34838 (the supporting structure consisting of wood)
1/34846 (the supporting structure consisting of other specified material, e.g. of plastics)
1/34853 (the supporting structure being composed of two or more materials)
1/34861 (particular arrangement of habitable rooms or their component parts; modular co-ordination)
1/34869 (Elements for special technical purposes, e.g. with a sanitary equipment (combination of baths, douches, sinks, wash-basins, closets or urinals A47K 4/00; plumbing installations for baths, douches, or the like, E03C 1/01; panels serving for locating conduits E04C 2/521; ducts for receiving installation lines E04F 17/08))

2001/34876 (with a sloping or barrel roof)
2001/34884 (creating a living space between several units)
2001/34892 (Means allowing access to the units, e.g. stairs or cantilevered gangways)

1/35 Extraordinary methods of construction, e.g. lift-slab, jack-block (E04B 1/34 takes precedence; falsework, shuttering for shaping walls, floors, ceilings or roofs in situ E04G 11/04; conveying or assembling of building materials E04G 21/00; working measures on existing buildings E04G 23/00)

1/3511 (Lift-slab; characterised by a purely vertical lifting of floors or roofs or parts thereof)
1/3516 (characterised by erecting a vertical structure and then adding the floors from top to bottom)
1/3522 (characterised by raising a structure and then adding structural elements under it (E04B 1/3511, E04B 1/3516, E04B 1/3533 take precedence))
1/3527 (the structure being a roof)
1/3533 (characterised by the raising of hingedly-connected building elements, e.g. arches, portal frames (E04B 1/355 takes precedence))
1/3538 (the elements being a floor slab with hingedly-connected wall panels)
1/3544 (characterised by the use of a central column to lift and temporarily or permanently support structural elements (E04B 1/3516 and E04B 1/355 take precedence))
1/355 (characterised by the tilting up of whole buildings or sections thereof, e.g. walls, portal frames)
1/3555 (Constructions using straw bales)
2001/3561 (adding living space above existing structures)
2001/3566 (mounting masonry against a forwork)
2001/3572 (using templates or jigs to set out buildings or parts thereof)
2001/3577 (prefabricating a building and moving it as a whole to the erection site)

2001/3583 (using permanent tensioning means, e.g. cables or rods, to assemble or rigidify structures (not pre- or post stressing concrete), e.g. by tying them around the structure)
2001/3588 (using special lifting or handling devices, e.g. gantries, overhead conveying rails)
2001/3594 (inflatable lifting or handling devices)
1/36 Bearings or like supports allowing movement (for bridges E01D 19/04; buildings with-standing earthquakes E04H 9/02)
1/38 Connections for building structures in general

NOTE
Connections specially adapted for particular building parts or for particular building structures are classified in the groups for those parts or structures, e.g. in groups E04B 1/21, E04B 2/00, E04B 5/00, E04B 7/00 or E04B 9/00. Joints not specially adapted for building construction, or of more general application, are classified in the appropriate subclasses, e.g. F16B.  

1/383 (Connection of concrete parts using adhesive materials, e.g. mortar or glue)
2001/386 (Nailable or screwable inserts for foam panels)
1/40 (Separate connecting elements (for forms, falsework, or shutterings E04G 17/00; releasable clips or clamps, hooks, wedges, wall-dowels, nails, bolts, rivets, screws, wood-screws F16B))
2001/405 (Brackets)
1/41 Connecting devices specially adapted for embedding in concrete ((joist hangers E04B 1/2612; shear dowels E04B 1/483); spacers [other than masonry wall ties] for cavity walls E04B 2/30, E04B 2/44; connectors for reinforcing elements E04C 5/16; supporting devices for connector reinforcing rods for concrete walls E04G 21/125; fastening frames to the border of openings E06B 1/56)
1/4107 (Longitudinal elements having an open profile, with the opening parallel to the concrete or masonry surface, i.e. anchoring rails)
1/4114 (Elements with sockets (E04B 1/4107 takes precedence))
1/4121 (with internal threads or non-adjustable captive nuts)
1/4128 (receiving adjustable or removal nuts)
1/4135 (receiving removal bolt heads (E04B 1/415 takes precedence))
1/4142 (with transverse hook- or loop-receiving parts (E04B 1/415 takes precedence))
1/415 (with captive and extendable anchoring parts, e.g. spring-loaded bolts, hanging rings)
1/4157 (Longitudinally-externally threaded elements extending from the concrete or masonry, e.g. anchoring bolt with embedded head)
1/4164 (with an adjustment sleeve)
1/4171 (Nailable or non-threaded screwable elements (dowels F16B 13/00))
1/4178 (Masonry wall ties (with insulation-layer locating devices E04B 1/7616; replacing or adding wall ties E04G 23/0222))
of slab-shaped building elements with each other
connections E04B 1/21
F16B (welded, glued, or the like joints, in general elements, e.g. jointing by inter-engagement (welded, glued, or the like joints, in general F16B))
of bar-shaped building elements (framework connections E04B 1/21, E04B 1/2403, E04B 1/2604)
with a cross-section having an open profile)
(of substantially I - or H - form)
(of substantially U - form)
(with a closed cross-section)
(of substantially rectangular form)
(of substantially circular form)
(with ends provided with protuberances)
(with separate connection devices)
(using the insides thereof)
[Angularly adjustable connections without hinge pin]
[Hinged connections]
[using exterior clamping plates or shells]
[using an undercut groove, e.g. dovetail groove]
[using connectors with sockets]
[Puzzle type connections]
of slab-shaped building elements with each other
the overlapping ends of the slabs connected together
the frontal surfaces of the slabs connected together
(by clamping, e.g. friction, means on lateral surfaces)
(by locking means on lateral surfaces)
(by means between frontal surfaces)
(with protrusions on the one frontal surface co-operating with recesses in the other frontal surface)
(the connection made by expansion)
(the connection made by friction-grip)
(the connection made by formlocking)
(the connection made by an additional locking key)
(with recesses in both frontal surfaces co-operating with an additional connecting element)
(the connection made by expansion)
(the connection made by friction-grip)
(the connection made by formlocking)
(the connection made by an additional locking key)
(with protrusions on both frontal surfaces)
[Sheets or foils impervious to water and water vapor]
1/68 . . . of joints, e.g. expansion joints (packing for joints in roads or airfields E01C 11/02; expansion joints for bridges E01D 19/06; sealing joints between foundation piles E02D 5/14; joints in foundation structures E02D 29/16; devices for sealing the spaces or joints between roof-covering elements E04D 1/36; sealing joints between roof-covering elements E04D 3/38; construction of joints for flooring or floor layers composed of a number of similar elements E04F 15/07005); construction of joints for flooring or floor layers made of masses in situ E04F 15/14)

1/6801 . . . [Fillings therefor]

1/6803 . . . [Joint covers (E04B 1/6815 takes precedence)]

1/6804 . . . [specially adapted for floor parts]

1/6806 . . . [Waterstops (E04B 1/6807 takes precedence)]

1/6807 . . . [Expansion elements for parts cast in situ]

1/6809 . . . [Reverse side strips]

1/6811 . . . [for free moving parts]

1/6812 . . . [Compressible seals of solid form]

1/6813 . . . [Compressible seals of hollow form (E04B 1/6816 takes precedence)]

1/6815 . . . [Expansion elements specially adapted for wall or ceiling parts]

1/6816 . . . [Porous tubular seals for injecting sealing material (filling of cracks in existing buildings E04G 23/02)]

2001/6818 . . . [Joints with swellable parts]

1/70 . . . Drying or keeping dry, e.g. by air vents (using damp-proof courses E04B 1/644; using sealings, e.g. sealing masses or foils, E04B 1/66); during erection E04G 21/28)

1/7007 . . . [by using electricity, e.g. electro-osmosis (electrochemical desalination or re-alkalisation of reinforced concrete C09H 41/00)]

1/7015 . . . [by heating the ambient air]

1/7023 . . . [by collecting water in basements]

1/703 . . . [Evacuating water from walls made from hollow bricks]

1/7038 . . . [Evacuating water from cavity walls, e.g. by using weep holes]

1/7046 . . . [using trays]

1/7053 . . . [Grills for weep holes]

1/7061 . . . [Devices for preventing blockage of weep holes, e.g. a blockage caused by falling mortar]

1/7069 . . . [by ventilating (means for ventilating in floors E04B 5/48, in ceilings E04B 9/02, in building blocks E04C 1/392, in building panels E04C 2/521, in roofs E04D 13/16; ventilating wall coverings E04F 13/002)]

1/7076 . . . [Air vents for walls]

1/7084 . . . [with Knappen systems, i.e. atmospheric siphons]

1/7092 . . . [Temporary mechanical ventilation of damp layers, e.g. insulation of a floating floor]

1/72 . . . Pest control (by keeping dry E04B 1/70; impregnation of wood or like materials B27K)
for producing a reverberation or echo sound (E04B 1/82 in, rooms for influencing or directing sound (Room acoustics, i.e. forms of, or arrangements for producing a reverberation or echo sound)); electric signal processing mechanisms }

Acoustical surfaces with adjustment mechanisms }

Protection against harmful electro-magnetic or radio-active radiations, e.g. X-rays )

against fire ((fire protection of partitions (E04B 2/7403, E04B 2/7409); supporting constructions for ceilings having the capability of expansion in case of fire (E04B 9/08); fire-fighting A62C; (e.g. fire prevention or containment A62C 2/00); impregnation of wood or similar materials B27K; (fireproof paints C09D 5/18; fireproofing materials C09K 21/00; flame-resistant papers D21H 5/0002; coverings or linings, e.g. for walls or ceilings, in general E04F 13/00); fireproof doors E06B 5/16; (firebreak devices for pipes or the like passing through walls F16L 5/04; protection of pipes by means of non-inflammable material F16L 57/04))

[Building elements specially adapted therefor]

[slab-shaped]

[elongated]

[covered with fire-proofing material]

[Load-supporting structures specially adapted therefor]

[Protection against smoke or toxic gases]

[by closing openings in walls or the like in the case of fire (fire-proof doors E06B 5/16)]

[Fire-proof sealings or joints (for doors or windows E06B 5/164)]

[Construction elements filled with liquid, e.g. water, either permanently or only in case of fire]

[against vibrations or shocks (on foundations E02D 31/08); against mechanical destruction, e.g. by air-raids (against incendiary damage only E04B 1/94; finishing work therefor E04F; buildings withstanding earthquake or the like, shelters, arrangements of splintercatching walls E04H 9/00)]

[involving active or passive dynamic mass damping systems]

Room acoustics, i.e. forms of, or arrangements in, rooms for influencing or directing sound (E04B 1/82 takes precedence; acoustic in general G10K 11/00; electric signal processing for producing a reverberation or echo sound G10K 15/08)]

[Acoustical surfaces with adjustment mechanisms]
Walls, e.g. partitions, for buildings; Wall construction with regard to insulation; Connections specially adapted to walls (connections for building structures in general E04B 1/38; insulation for buildings in general E04B 1/62; building elements of relatively thin form for parts of buildings E04C 2/00)

- built-up from layers of building elements
- [Details of connections]
- [Non-undercut connections, e.g. tongue and groove connections]
- [of rectangular shape]
- [of trapezoidal shape]
- [of triangular shape]
- [of round shape]
- [with separate protrusions]
- [of prismatic shape]
- [of pyramidal shape]
- [of conical shape]
- [of cylindrical shape]
- [with tongues and grooves next to each other on the end surface]
- [with tongues next to each other on one end surface and grooves next to each other on opposite end surface]
- [with rabbets, e.g. stepped]
- [Undercut connections, e.g. using undercut tongues and grooves]
- [Angular dovetails]
- [tapered, i.e. dovetail narrows in the direction of tongue or groove]
- [Round dovetails]
- [tapered, i.e. dovetail narrows in the direction of tongue or groove]
- [Separate connectors or inserts, e.g. pegs, pins or keys]
- [Pegs or pins]
- [Strips or bars]
- [U-shaped, e.g. brackets]
- [Dovetail keys]
- [Tie rods]
- [Special features of building elements]
- [Gripping or handling aids]
- [Splittable building elements]
- [Building elements for making angled walls]
- [Building elements for making arcuate walls]
- [Building elements with the appearance of several bricks]
- [Building elements with a natural stone facing]
- [Building elements with the appearance of rock layers]
- [Adhesive layers other than mortar between building elements]
- [Separate layers or strips]
- [forming a unity with the building elements]
- [Spacers between building elements]
- [Separate spacers]
- [forming a unity with the building elements]
- [Building elements with coatings]
- [Building elements with holes filled with insulating material]
- [loose material]
- [solid material]
by interlocking of projections or inserts with indentations, e.g. of tongues, grooves, dovetails

by filling material with or without reinforcements in small channels in, or in grooves between, the elements

using elements having a general shape differing from that of a parallelepiped

the walls being characterised by fillings in some of the cavities forming load-bearing pillars or beams

the walls being characterised by fillings in all cavities in order to form a wall construction

{Load-bearing} walls of framework or pillarwork; Walls incorporating load-bearing elongated members (E04B 2/74; E04B 2/88 take precedence; pillars E04C 3/30)

{ with fillings between the load-bearing elongated members }

{ with a brick veneer facing }

{ with posts or pillars made from a plurality of smaller prefabricated elements }

with elongated members of metal

characterised by special cross-section of the elongated members

the members being formed of two or more elements in side-by-side relationship

with elongated members of concrete

characterised by special cross-section of the elongated members

made by filling-up wall cavities (E04B 2/24, E04B 2/38; E04B 2/52 take precedence)

with elongated members of wood

{ with integrated supporting and obturation function }

{ with longitudinal horizontal elements (E04B 2/704; E04B 2/705 take precedence) }

{ with longitudinal vertical elements }

{ with longitudinal horizontal elements shorter than the length of a wall }

{ with longitudinal horizontal elements placed between columns }

{ with supporting function }

{ obturation by means of panels }

{ obturation by means of longitudinal elements with a convex external surface }

{ obturation by means of longitudinal elements with a plane external surface }

{Non-load-bearing} walls of elements of relatively thin form [with respect to the thickness of the wall] (E04B 2/56, E04B 2/74; E04B 2/88 take precedence; with joint fillings acting as framework or pillars E04B 2/68; elements E04C 2/00)

{ connections specially adapted therefor }

{ constituted of gypsum elements }

{ Corner or angle connection details }

{ Clips for butt-joining plasterbords }

{ Butt-joining plasterboards in the space between two studs }

Removable non-load-bearing partitions; Partitions with a free upper edge (framed panels E04C 2/38) {modular coordination}

[assembled using panels without a frame or supporting posts, with or without upper or lower edge locating rails]

{ with special measures for sound or thermal insulation including fire protection }

{ with free upper edge, e.g. for use as office space dividers }

{ assembled using frames with infill panels or coverings only; made-up of panels and a support structure incorporating posts (E04B 2/78 and E04B 2/80 take precedence) }

{special measures for sound or thermal insulation, including fire protection}

{ Details for fire protection }

{ Posts or frame members specially adapted for reduced sound or heat transmission }

{ Posts or frame members with projections for holding sound or heat insulating fillings }

{ with free upper edge, e.g. for use as office space dividers }

{ Accessories supported on the free upper edge, e.g. auxiliary panels, noise abatement devices }

{ Details of panel top cap }

{ with separate framed panels without intermediary support posts }

{ Glazing details }

{ Details of connection of panels (E04B 2/7437 takes precedence) }

{ with adjustable angular connection of panels }

{ using flexible hinges }

{ using hinges having two parallel rotation axes }

{ with panels and support posts }

{ Glazing details }

{ with panels hooked onto posts (E04B 2/7438 takes precedence) }

{ with adjustable angular connection of panels to posts }

{ using angularly-spaced longitudinal grooves of the posts }

{ hinged connections (E04B 2/7444 takes precedence) }

{ panels hooked onto the rim or in a groove of circular posts }

{Post-like profiles for connecting panels at an angle}

{ with separate framed panels without intermediary posts, extending from floor to ceiling }

{ Glazing details }

{ with false tongue joints }

{ with panels and support posts, extending from floor to ceiling }

{ Glazing details }

{ with wallboards attached to the outer faces of the posts, parallel to the partition (E04B 2/7459 takes precedence) }

{ with telescoping posts to compensate for floor or ceiling irregularities }

{ Details of connection of sheet panels to frame or posts }

{using resilient connectors, e.g. clips}
connections, thresholds or skirtings \[E04B\] 2/82

with framework or posts of metal \{ details of \}

place \}

\{ Details of wiring \}

\{ with framework or posts of wood \}

\{ characterised by the manner in which edges are connected to the building; Means therefor; Special details of easily-removable partitions \{ as far as related to the connection with other parts of the building \}

\{ Connections between two opposed surfaces \{ i.e. floor and ceiling \} by means of a device offering a restraining force acting in the plane of the partition \}

\{ Elastic connections, e.g. inflated joints \}

\{ restrained elastically at one surface and inelastically at the opposing surface \}

\{ the connection between the floor and the ceiling being achieved without any restraining forces acting in the plane of the partition \}

\{ Partitions constituted of sliding panels \}

\{ Connections between partitions and structural walls \}

Walls made by casting, pouring, or tamping in situ \[E04G\] 21/02, \[E04B\] 2/56

made in permanent forms \{ by projecting or otherwise applying hardenable masses able to be cast or poured in situ \[E04G\] 2102; \}

\{ Wall end details \}

\{ Corner details \}

\{ Mixed technique using permanent and reusable forms \}

\{ using dovetail-type connections \}

\{ with ties going through the forms \}

\{ with ties located in the joints of the forms \}

\{ using wire netting, a lattice or the like as form leaves \}

\{ with ties located in the joints of the forms \}

\{ using flexible material as form leaves \}

\{ of substantially S - or Z - section; having a shape or cross-section adapted for gripping or overlapping panels by means of at least partially complementary shaped parallel elements \}

\{ of substantially U- or C- section \}

\{ with framework or posts of wood \}

\{ characterised by the manner in which edges are connected to the building; Means therefor; Special details of easily-removable partitions \{ as far as related to the connection with other parts of the building \}

\{ Connections between two opposed surfaces \{ i.e. floor and ceiling \} by means of a device offering a restraining force acting in the plane of the partition \}

\{ Elastic connections, e.g. inflated joints \}

\{ restrained elastically at one surface and inelastically at the opposing surface \}

\{ the connection between the floor and the ceiling being achieved without any restraining forces acting in the plane of the partition \}

\{ Partitions constituted of sliding panels \}

\{ Connections between partitions and structural walls \}

Walls made by casting, pouring, or tamping in situ \[E04G\] 21/02, \[E04B\] 2/56 take precedence; forms therefor \[E04G\] 11/06; working of concrete or similar masses able to be cast or poured in situ \[E04G\] 2102; \}

\{ Wall end details \}

\{ Corner details \}

\{ Mixed technique using permanent and reusable forms \}

\{ using dovetail-type connections \}

\{ with ties going through the forms \}

\{ with ties located in the joints of the forms \}

\{ using wire netting, a lattice or the like as form leaves \}

\{ using flexible material as form leaves \}

\{ of substantially S - or Z - section; having a shape or cross-section adapted for gripping or overlapping panels by means of at least partially complementary shaped parallel elements \}

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\{ Wall end details \}

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\{ using dovetail-type connections \}

\{ with ties going through the forms \}

\{ with ties located in the joints of the forms \}

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\{ using flexible material as form leaves \}

\{ of substantially S - or Z - section; having a shape or cross-section adapted for gripping or overlapping panels by means of at least partially complementary shaped parallel elements \}
Floors; Floor construction with regard to insulation; Connections specially adapted therefor
(elements for floors, e.g. bricks, stones, filling bodies, girders, E04C; flooring as finishing work, insulation of flooring, sectional false floors, e.g. for computers girders, E04F)

Floors constructed in situ, of prefabricated units (E04B 5/02)

Floors constructed partly in situ, with beams or slabs of plastic (E04B 5/02)

Floors composed of stones, mortar, and reinforcing material, e.g. asbestos cement (E04B 5/04)

Floors with beams or girders, e.g. with steel lattice girders (E04B 5/12)

Floors with beams or girders laid in two directions (E04B 5/14)

Load-carrying floor structures wholly or partly cast or similarly formed in situ (E04B 5/16)

Floor structures formed substantially of prefabricated units (E04B 5/02)

Floors made of prefabricated units (E04B 5/08)

Floors consisting wholly of metal (E04B 5/28)

Floors comprising panels mounted glazing panels (E04B 5/06)

Form slabs and construction form slabs acting simultaneously as reinforcement; Form slabs with reinforcements extending laterally outside the element (E04B 5/28)

Floors with metal form-slabs (E04B 5/06)

Floor structures of extraordinary design; Features relating to the elastic stability; Floor structures specially designed for resting on columns only, e.g. mushroom floors (E04B 5/08)

Floors composed of stones, mortar, and reinforcing elements (E04B 5/04)

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Special adaptations of floors for incorporating ducts, e.g. for heating or ventilating (E04B 5/04)

7/00 Roofs; Roof construction with regard to insulation (structures for roofs as well as for floors E04B 5/00; ceilings E04B 9/00; greenhouses A01G 9/14; large containers having floating covers B65D 88/34; roof trusses, trusslike structures, joists E04C 3/02; roof covering E04D 3/06)

Roofs with plane sloping surfaces, e.g. saddle roofs (E04B 9/00)

Roofs with plane sloping surfaces, e.g. saddle roofs (E04B 9/00)
Floors E04B 5/00

9/001 . . . [characterised by provisions for heat or sound insulation]

9/003 . . . [with movable parts, e.g. pivoting panels, access doors]
with the slabs, panels, sheets or the like positioned on the upperside of the horizontal flanges of the supporting construction or accessory means connected thereto

with separate retaining elements

comprising sealing means between the supporting construction and the slabs, panels, sheets or the like

by means of screws, bolts or clamping strips held against the underside of the supporting construction (E04B 9/26 takes precedence)

by means of sliding or pivoting locking elements, held against the underside of the supporting construction

by means of permanent magnetic force held against the underside of the supporting construction

by means of snap action of elastically deformable elements held against the underside of the supporting construction

with the slabs, panels, sheets or the like having grooves engaging with horizontal flanges of the supporting construction or accessory means connected thereto

characterised by edge details of the ceiling; e.g. securing to an adjacent wall

for flexible tensioned membranes

(Tensioning hand tools therefor)

Translucent ceilings, i.e. permitting both the transmission and diffusion of light (E04B 9/30 and E04B 9/34 take precedence; details of lighting devices, of general application F21V; screens F21V 11/00)

(Grid-like or) open-work ceilings, e.g. lattice type boxlike modules, acoustic baffles (E04B 9/30 takes precedence, grids for lighting devices F21V)

consisting of non-parallel slats, e.g. grids

consisting of parallel slats

the principal plane of the slats being horizontal

the principal plane of the slats being vertical

Material constitution of slabs, sheets or the like

of ceramics, concrete or other stone-like material

of plastics, fibrous material or wood

of metal