

F10 BRICK/BLOCK WALLING

To be read with Preliminaries/General conditions.

TYPE(S) OF WALLING

- 350
(ABOVE D.P.C):
- DENSE CONCRETE COMMON BLOCKWORK TO INTERNAL PARTITIONS
- Blocks: to BS 6073:Part 1.
Manufacturer and reference: Roadstone or similar approved.
Contact: Roadstone; Tel: 01-4041400 , www.roadstone.ie
Minimum compressive strength: 5N/sq mm.
Minimum density: 2000 kg/m³.
Work size(s): 440 x 215 x 100.
Special shapes: Coursing blocks.
 - Mortar: As section Z21.
Mix: 1: 1/2: 4 1/2 cement: Lime: sand.
 - Bond: Half lap stretcher.
 - Joints generally: Flush.
 - Joints to walls finished in plaster or render: Raked back 5mm.
- 351
- CONCRETE COMMON BLOCKWORK BELOW DPC.:
- Blocks: Dense concrete to BS 6073:Part 1.
Manufacturer and reference: Roadstone or similar approved.
Contact: Roadstone; Tel: 01-4041400 , www.roadstone.ie
Minimum average compressive strength: 5N/sq mm.
Work size(s): 440 x 215 x 100,
 - Mortar: As section Z21.
Mix: 1:3 cement:sand.
 - Bond: Half lap stretcher.
- 352
ABOVE D.P.C.:
- MEDIUM-DENSE CONCRETE COMMON BLOCKWORK TO CAVITY WALLS
- Blocks: to BS 6073:Part 1.
Manufacturer and reference: Roadstone or similar approved.
Contact: Roadstone; Tel: 01-4041400 , www.roadstone.ie
Minimum compressive strength: 7N/sq mm.
Minimum density: 1200 kg/m³.
Work size(s): 440 x 215 x 100, 215 x 215x 100
Special shapes: Coursing blocks.
 - Mortar: As section Z21.
Mix: 1:1:6
 - Bond: Half lap stretcher.
 - Joints generally: Flush.
 - Joints to walls finished in plaster or render: Raked back 5mm.
- 380
- ENGINEERING BRICKWORK TO MANHOLES:
- Bricks: To BS 3921, Engineering Class A.
Manufacturer and reference: To approval.
 - Mortar: As section Z21.
Mix: 1:3

- Bond: Half lap stretcher.
- Joints: Flush.

WORKMANSHIP GENERALLY

420 SITE STORAGE: Store bricks/blocks in stable stacks clear of the ground and clearly identified by type, strength, grade, etc. Protect from adverse weather and keep clean and dry.

430 CONDITIONING OF BRICKS:
 - Do not use clay bricks or calcium silicate bricks when still warm from the manufacturing process.
 - In dry warm weather wet the surfaces of very absorbent bricks slightly to reduce suction. Do not soak.

440 CONDITIONING OF CONCRETE BRICKS/BLOCKS:
 Do not use autoclaved concrete bricks/blocks when still warm from the manufacturing process.
 Do not use non-autoclaved concrete bricks/blocks until at least four weeks after casting.
 Do not wet concrete bricks or blocks before laying; use an approved water retaining admixture in the mortar to counteract suction.

500 LAYING GENERALLY:
 - Lay bricks/blocks on a full bed of mortar; do not furrow. Fill all cross joints and collar joints; do not tip and tail.
 - Build walls in stretching half lap bond when not specified otherwise.
 - Plumb perpends of facework every third or fifth cross joint along a course and even out the joint widths in between.

510 OVERHAND LAYING must not be used.

511 OVERHAND LAYING will be permitted subject to compliance with this specification and approval of samples and methods of carrying out the work.

520 ACCURACY: Keep courses level and true to line. Accurately plumb all wall faces, angles and features. Unless otherwise specified, build brickwork/blockwork within the following permissible deviations (mm):

- Position in plan of any point or specified fair face in relation to the nearest building grid line at the same level: ± 10
- Length (unless otherwise defined by adjacent construction):
 - Up to 5 m: ± 15
 - 5 to 10 m: ± 20
 - 10 to 20 m: ± 25
 - Over 20 m: ± 30
- Height:
 - Up to 3 m: ± 15
 - 3 to 6 m: ± 20
 - Over 6 m: ± 25
- Level of bed joints:
 - Up to 5 m long: ± 10
 - 5 to 10 m long: ± 15
 - Over 10m long: ± 25
- Straightness in any 5 m length: ± 10

10	<ul style="list-style-type: none"> - Vertically: In any 3 m height: ± 10 In o/a height of building exceeding 6 m: ± 20 - Thickness: Overall thickness of walls or width of piers (subject to the following): ± 15 Difference in thickness of a wall or width of a pier at any two points 3 m apart: \pm
535 LIME MORTAR:	HEIGHT OF LIFTS IN WALLING USING CEMENT GAUGED OR HYDRAULIC
the CA.	<ul style="list-style-type: none"> - Rack back when raising quoins and other advance work. Do not use toothing. - Raise no portion of the work more than 1.2 m above another at any time. - Do not carry up any one leaf more than 1.5 m in one day unless permitted by
545 HYDRAULIC LIME MORTAR:	LEVELLING OF SEPARATE LEAVES USING CEMENT GAUGED OR Bring both leaves of cavity walls to the same level at: <ul style="list-style-type: none"> - Every course containing vertical twist type ties or other rigid ties - Every third tie course for double triangle/butterfly ties - Courses in which lintels are to be bedded.
560 joints.	COURSING BRICKWORK: Gauge brick courses four to 300 mm including
561	COURSING BRICKWORK: Arrange brick courses to line up with existing work.
580 frogged bricks with deeper frog	FROGGED BRICKS: Lay single frogged bricks with frog uppermost; lay double uppermost. In either case completely fill frogs with mortar.
585	CELLULAR BRICKS: Lay with cavities downward.
595 masonry units occur below lintel ends.	LINTEL BEARINGS: Carefully predetermine setting out to ensure that full length
610	SUPPORT OF EXISTING WORK: Where new lintels or walling are to support existing structure, completely fill top joint with semidry mortar, hard packed and well rammed to ensure full load transfer after removal of temporary supports.
620 less than 100 mm deep, the full thickness of the new wall, and vertically as follows:	BLOCK BOND new walls to existing, by cutting pockets into existing walls, not Brick to brick: 4 courses high at 8 course centres. Block to block: Every other course. Bond new walling into pockets with all voids filled solid with mortar.
635 profile(s) as the work proceeds.	JOINTING: When not specified otherwise, finish joints neatly to the specified
645 exposed to view in the finished work.	UNEXPOSED JOINTS: As the work proceeds, strike off joints that will not be
670 to seal cavities from interior of building.	FIRE STOPPING: Fill joints around joist ends built into cavity walls with mortar

671 FIRE STOPPING: Ensure a tight fit between brickwork and cavity barriers to prevent fire and smoke penetration.

680 HOLES, RECESSES AND CHASES IN BRICK/BLOCK WALLING: Comply with the relevant clause in section P31.

690 ADVERSE WEATHER:

- Do not use frozen materials and do not lay on frozen surfaces.
- Do not lay bricks/blocks:
 - In cement gauged mortars when the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of 4°C when laid and walling is thoroughly protected).
 - In hydraulic lime:sand mortars when the air temperature is at or below 5°C and falling or below 3°C and rising.
 - In thin joint mortar glue when climatic conditions are outside the limits set by the mortar manufacturer.
- Maintain temperature of the work above freezing until mortar has fully hardened.
- Protect newly erected walling from:
 - Rain and snow by covering when precipitation occurs, and at all times when the work is not proceeding.
 - Drying out too rapidly in hot conditions and in drying winds.
- Rake out and replace cement gauged or hydraulic lime mortar damaged by frost. When instructed, rebuild damaged work.
- When instructed rebuild frost damaged thin joint masonry walling.

ADDITIONAL REQUIREMENTS FOR FACEWORK

710 THE TERM FACEWORK, where used in this specification, applies to all brick/block walls finished fair. Where any facework is to be painted, the only specification requirement to be waived is that relating to colour.

740 REFERENCE PANEL(S): Prepare panel(s) as set out below and, after drying out, obtain approval of appearance before proceeding. Construct panels in an approved location using randomly sampled bricks/blocks but rejecting any that are damaged .

- Walling type F10/110.
- Size of panel: 1.5m x 1m.

750 COLOUR MIXING:

- Agree with manufacturer and CA methods for ensuring that the supply of facing bricks/blocks is of a consistent, even colour range, batch to batch and within batches.
- Check each delivery for consistency of appearance with previous deliveries and with approved samples or reference panels; do not use if variation is excessive.
- Mix units from different packs and deliveries which vary in colour to avoid patches, horizontal stripes and racking back marks in the finished work.

760 APPEARANCE:

- Select bricks/blocks with unchipped arrises. Cut with a masonry bench saw where cut edges will be exposed to view.
- Set out and lay bricks to match appearance of relevant approved reference panel(s).
- Keep courses evenly spaced using gauge rods. Set out carefully to ensure satisfactory junctions and joints with adjoining or built-in elements and components.

- Complete each lift in one period of operation.
- Protect facework against damage and disfigurement during the course of the works, particularly arrises of openings and corners.

780 GROUND LEVEL: Facework to start not less than 150 mm below finished level of external paving or soil except where shown otherwise.

790 PUTLOG SCAFFOLDING to facework will not be permitted.

800 TOOTHED BOND: Except where a straight vertical joint is specified, new and existing facework in the same plane to be bonded together at every course to give a continuous appearance.

820 BRICK SILLS/CAPPINGS: Bed solidly in mortar with vertical joints completely filled. Press mortar firmly into exposed joints and finish neatly.

830 CLEANLINESS: Keep facework clean during construction and thereafter until Practical Completion. Turn back scaffold boards at night and during heavy rain. If, despite precautions, mortar marks are deposited on the face of masonry units, leave to dry then remove with a stiff brush. Rubbing to remove marks or stains will not be permitted.