

P – BRICKWORK

1.0 GENERAL

Unless otherwise specified all brickwork shall comply with the requirements of CP 121 : Part 1:1973.

2.0 MORTAR

2.1 *General*

Mortar to be used for the work shall be in accordance with CP 121: Part 1: 1973 and consists of either:

- o Cement : sand
- o Cement : sand with plasticizer
- o Masonry cement : sand

All mortar shall be used within 45 minutes of mixing and no remarking up of mortar shall be permitted thereafter.

Mortar for brickwork and plasterwork below ground level shall be in the proportion of 1 part of cement or masonry cement and 3 parts of sand.

Mortar for brickwork and plasterwork above ground level shall be in the proportion of 1 part of cement and sand, with the addition of an approved mortar plasticizer or 1 part of masonry cement and 6 parts of sand.

The ingredients for mortar shall be measured in proper gauging boxes and shall be mixed on a clean boarded platform or in the approved mechanical batch mixer. The mixture shall be thoroughly mixed dry after which only sufficient water shall be added with fine roses and the mass thoroughly mixed again to produce a uniform material of good consistency. No remarking up of partially set mortar shall be permitted.

2.2 *Cement*

The cement to be used, unless otherwise specified shall be Ordinary Portland Cement complying with MS 522:1977 and masonry cement shall comply with MS 794:1982.

2.3 *Admixtures*

Mortar plasticizers shall comply with the requirements of BS 4887:1973 and used strictly in accordance with the manufacturer's instructions.

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2.4 Sand

Sand for mortar shall comply with BS 1210:1976 and shall be natural sand obtained from rivers or approved pits. Sand shall be hard, durable, clean, and free from adherent coatings such as clay, and from any appreciable amount of clay in pellet form. It shall not contain harmful materials such as iron pyrites, salts, coal or other organic impurities, mica, shale or similar laminated materials or flaky or elongated particles in such a form or sufficient quantity to affect adversely the hardening strength or durability of the mortar or as might attack the reinforcement in reinforced brickwork. The S.O's decision as to the suitability of any sand shall be final. The grading of the sand when determined as described in MS 30:1971 shall be within the following limits:

BS Sieves (mm)	Percentage by mass passing BS Sieves	
	Type S	Type G
6.3	100	100
5.00	98 – 100	98 – 100
2.36	90 – 100	90 – 100
1.18	70 – 100	70 – 100
µm		
600	40 – 100	40 – 100
300	5 – 70	21 – 90
150	0 – 15	0 – 25
75	0 – 5	0 – 8

2.5 Water

The water to be used shall be as specified under Concrete Work.

3.0 BRICKS

The bricks to be used for the work shall be solid common fired-clay bricks complying with MS 76:1972 and of approved manufacture. They shall be regular in size and shape, with good-faces and clean arises, undamaged, and free from all defects. Before any bricks are ordered, samples shall be submitted to the S.O for the approval and all deliveries of bricks shall be up to standard of samples approved and kept on the site. All rejected bricks shall be removed from the site forthwith at the Contractor's own expense.

4.0 BRICKWALLING

The whole of the brickwork shown upon the drawings unless otherwise specified, shall be constructed with standard size clay brick in the mortar and leave surface ready for plastering.

All bricks shall be soaked in a suitable tank or pit to be provided by the Contractor for at least half an hour before being laid and shall be kept wet whilst being laid. The top of the walls left off shall be thoroughly wetted before work is resumed. All

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constructed walling must be left wet and properly protected from the direct sunlight during the following day. The Contractor shall provide sufficient means to ensure that this is done.

All bricks shall be properly bedded in mortar. All joints shall be thoroughly flushed up and raked out to a depth of 13mm as the work proceeds. No joint shall exceed 10mm in thickness.

Brickwork shall be carried perfectly true and plumb in a uniform manner. No one portion being raised more than 1m above another at one time. No overhand work shall be permitted and scaffolding shall be carried up as work proceeds. The vertical points of every alternate course shall be kept perpendicular over one another, and all perpend, quoins etc, shall be kept strictly true square.

All intersections and angles of walls shall be properly bonded together, and all walls and piers of lengths and widths not multiples of brick sizes shall be cut and bonded in the best approved manner. No broken bricks shall be used except where required to form bond.

All half brick (113mm) walls shall be reinforced at every fourth course with approved brick reinforcement commencing two courses above base level.

All brickwork adjacent to reinforced concrete shall be bonded to the concrete structure properly with wrought iron cramps of approved size and pattern set at 900mm centres.

All arches, cuttings, sinkings, setbacks and projections shall be properly formed. Chases and holes through walls for the passage of pipes, and the like shall be neatly cut and formed.

5.0 BOND

All half brick-walls shall be built in stretcher bond.

All other brickwork shall be built in English bond or as shown in the Drawings.