
(K) Earth-retaining walls (other than cappings and copings)

K1 With water-proofed retaining face and coping

FL, FN, ML or MN in (i) or (ii)

Classes 3 to 7 in (ii) or (iii)

$\geq 15 \text{ N/mm}^2$ in (ii)

Either
(a) of block density $\geq 1500 \text{ kg/mm}^3$; or
(b) made with dense aggregate complying with BS 882 or BS 1047; or
(c) having a compressive strength $\geq 7 \text{ N/mm}^2$; or
(d) most types of autoclaved aerated block (see remarks) in (ii)

Because of possible contamination from the ground and saturation by ground waters, in addition to subjection to severe climatic exposure, masonry in retaining walls is particularly prone to frost and sulphate attack. Careful choice of materials in relation to the methods for exclusion of water recommended in clause 21 is essential.

It is strongly recommended that such walls be backfilled with free-draining material. The provision of an effective coping with a DPC (see clause 21) and waterproofing of the retaining face of the wall (see 22.1.2) is desirable.

Where FN or MN fired-clay units are used, the use of sulphate-resisting cement may be necessary (see 22.4).

Some types of autoclaved aerated concrete block are not suitable for use in K1. The manufacturer should be consulted.

Table 2.7 (Contd)

Masonry condition or situation	Quality of masonry units and appropriate mortar designations				Remarks
	Fired-clay units	Calcium silicate	Concrete bricks	Concrete blocks	
K2 With coping or capping but no waterproofing on retaining face	FL or FN in (i)	Classes 4 to 7 in (ii)	$\geq 30 \text{ N/mm}^2$ in (i) or (ii)	As for K1 but in (i) or (ii) (see remarks)	Most concrete blocks are not suitable for use in K2. The manufacturer should be consulted.
(L) Drainage and sewerage, e.g. inspection chambers, manholes					
L1 Surface water	Engineering bricks, FL, FN, ML or MN (see remarks) in (i)	Classes 3 to 7 in (ii) and (iii)	$\geq 20 \text{ N/mm}^2$ in (iii)	Either (a) of block density $\geq 1500 \text{ kg/m}^3$; or (b) made with dense aggregate complying with BS 882 or BS 1047; or (c) having a compressive strength $\geq 7 \text{ N/mm}^2$; or (d) most types of autoclaved aerated block (see remarks) in (ii)	Where FN fired-clay units are used, sulphate-resisting cement should be used. If sulphate ground conditions exist the recommendations in 22.4 should be followed. Some types of autoclaved aerated block are not suitable for use in L1. The manufacturer should be consulted. Some types of calcium silicate brick are not suitable for use in L2 or L3. The manufacturer should be consulted.