Table 2.7 Durability of masonry in finished construction[a] (BS 5628)

(A) Work below or near external ground level

Masonry condition or situation	*Quality of masonry units and appropriate mortar designations*				*Remarks*
	Fired-clay units	*Calcium silicate*	*Concrete bricks*	*Concrete blocks*	
A1 Low risk of saturation with or without freezing	FL, FN, ML or MN in (i), (ii) or (iii)	Classes 3 to 7 in (iii) or (iv) (see remarks)	$\geqslant 15\,N/mm^2$ in (iii)	Either (a) of block density $\geqslant$ 1500 kg/m^3; or (b) made with dense aggregate complying with BS 882 or BS 1074; or (c) having a compressive strength $\geqslant 7\,N/mm^2$; or (d) most types of autoclaved aerated block (see remarks) in (iii)	Some types of autoclaved aerated concrete block may not be suitable. The manufacturer should be consulted. If sulphate ground conditions exist, the recommendations in **22.4** should be followed. Where designation (iv) mortar is used it is essential to ensure that all masonry units, mortar and masonry under construction are protected fully from saturation and freezing (see clause **30** and clause **35**).

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*	
A2 High risk of saturation *without* freezing	FL, FN, ML or MN in (i) or (ii) (see remarks)	Classes 3 to 7 in (ii) or (iii)	$\geqslant 15\,N/mm^2$ in (ii) or (iii)	As for A1 in (ii) or (iii)	The masonry most vulnerable in A2 and A3 is located between 150 mm above, and 150 mm below, finished ground level. In this area masonry will become wet and may remain wet for long periods of time, particularly in winter. Where FN or MN fired-clay units are used in A2 or A3, sulphate-resisting cement should be used (see **22.4**).
A3 High risk of saturation *with* freezing	FL or FN in (i) or (ii)	Classes 3 to 7 in (ii)	$\geqslant 20\,N/mm^2$ in (ii) or (iii)	As for A1 in (ii)	
(B) Damp-proof courses					
B1 In buildings	Damp-proof course 1 as described in BS 3921, in (i)	Not suitable	Not suitable	Not suitable	Masonry DPCs can resist rising damp but will not resist water percolating downwards. If sulphate ground conditions exist, the recommendations in **22.4** should be followed.
B2 In external works	Damp-proof course 2 as described in BS 3921, in (i)	Not suitable	Not suitable	Not suitable	DPCs of fired-clay units are unlikely to be suitable for walls of other masonry units, as differential movement may occur (see **20.1**).