

## Summary of reinforced concrete<sup>A)</sup> durability requirements for exposure class XS3<sup>B)</sup> for an intended working life of not less than 50 years

Code of Practice, British Standard	Concrete made with: Portland cement, CEM I				Concrete made with: Blast-furnace cement, CEM III/A <sup>C)</sup>			
	mcc <sup>D)</sup> , kg/m <sup>3</sup>	mwc <sup>E)</sup>	$f_{ck,cube}$ MPa	$c_{nom}$ <sup>F)</sup> mm	mcc <sup>D)</sup> , kg/m <sup>3</sup>	mwc <sup>E)</sup>	$f_{ck,cube}$ MPa	$c_{nom}$ <sup>F)</sup> mm
<b>CP 110-1: 1972</b>	330	0.45	50	50	330	0.45	50	50
<b>BS 6349-1: 1984</b>	400	0.42	40	50	400	0.42	40	50
<b>BS 8110-1: 1985</b>	400	0.45	50	50	400	0.45	50	50
<b>BS 8110-1: 1997</b>	400	0.45	50	50	400	0.45	50	50
<b>BS 6349-1: 2000</b>	400	0.40	50	60	360	0.50	37	50
<b>BS 8500-1: 2002</b>	360	0.40	50	60	360	0.40	45	50
<b>BS 8500-1: 2006</b>	380	0.40	50	60	380	0.40	45	50
<b>BS 6349-1-4: 2013</b>	360	0.35	50	90	380	0.35	50	60
<b>BS 8500-1: 2015</b>	380	0.35	55	90	380	0.35	50	60

A) Maximum aggregate size 20mm

B) Assuming XS3 is equivalent to exposure classes previously described as severe, very severe or extreme

C) Assuming a nominal GGBS content of 40%, representative of UK Portland blast-furnace cements 1925–1990

D) Minimum cement or combination content

E) Maximum free water:cement ratio

F) Nominal cover assuming required minimum cover plus an allowance of 10mm.