

Table 1. Concrete Mix Design Form (BRE method)

Job title:

stage	item	Reference or calculation	Values
1	1.1	Characteristic strength	Specified $\left\{ \begin{array}{l} \dots\dots\dots\text{N/mm}^2 \text{ at}\dots\dots\dots\text{days} \\ \text{Proportion defective} \dots\dots\dots\% \end{array} \right.$
	1.2	Standard deviation	Fig. 3 $\dots\dots\dots \text{N/mm}^2 \text{ or no data} \dots\dots\dots \text{N/mm}^2$
	1.3	Margin	C1 $(k=\dots\dots\dots) \dots\dots\dots \times \dots\dots\dots = \dots\dots\dots \text{N/mm}^2$ Specified $\dots\dots\dots \text{N/mm}^2$
	1.4	Target mean strength	C2 $\dots\dots\dots + \dots\dots\dots = \dots\dots\dots \text{N/mm}^2$
	1.5	Cement strength class	Specified 42.5/52.5
	1.6	Aggregate type: coarse	Crushed/Uncrushed
	1.6	Aggregate type: fine	Crushed/Uncrushed
	1.7	Free-water/cement ratio	Table 2, Fig. 4
1.8	Max. Free water/cement ratio	Specified	
2	2.1	Slump or VeBe time	Specified Slump $\dots\dots\dots\text{mm}$ or VeBe time $\dots\dots\dots\text{s}$
	2.2	Max. Aggregate size	Specified $\dots\dots\dots\text{mm}$
	2.3	Free-water content	Table 3 $\dots\dots\dots\text{kg/m}^3$
3	3.1	Cement content	C3 $\dots\dots\dots / \dots\dots\dots = \dots\dots\dots \text{kg/m}^3$
	3.2	Maximum Cement content	Specified $\dots\dots\dots\text{kg/m}^3$
	3.3	Minimum Cement content	Specified $\dots\dots\dots\text{kg/m}^3$ Do not use less than 3.3 or more than 3.2 $\dots\dots\dots \text{kg/m}^3$
	3.4	Modified free-water/cement ratio	$\dots\dots\dots$
4	4.1	Relative density of aggregate (SSD)	$\dots\dots\dots\text{known/assumed}$
	4.2	Concrete density	Fig. 5 $\dots\dots\dots \text{kg/m}^3$
	4.3	Total aggregate content	C4 $\dots\dots\dots - \dots\dots\dots - \dots\dots\dots = \dots\dots\dots \text{kg/m}^3$
5	5.1	Grading of fine aggregate	Percentage passing 600 micron sieve $\dots\dots\dots\%$
	5.2	Proportion of fine aggregate	Fig. 6 $\dots\dots\dots\%$
	5.3	Fine aggregate content	$\left. \begin{array}{l} \dots\dots\dots \times \dots\dots\dots = \dots\dots\dots\text{kg/m}^3 \\ \dots\dots\dots - \dots\dots\dots = \dots\dots\dots\text{kg/m}^3 \end{array} \right\} \text{C5}$
	5.4	Coarse aggregate content	

Quantities	Cement (kg)	water (kg or lt)	Fine aggregate (kg)	Coarse aggregate (kg)		
				10 mm	20 mm	40 mm
Per m ³ (to nearest 5 kg)						
Per trial mix of $\dots\dots\dots \text{m}^3$						