

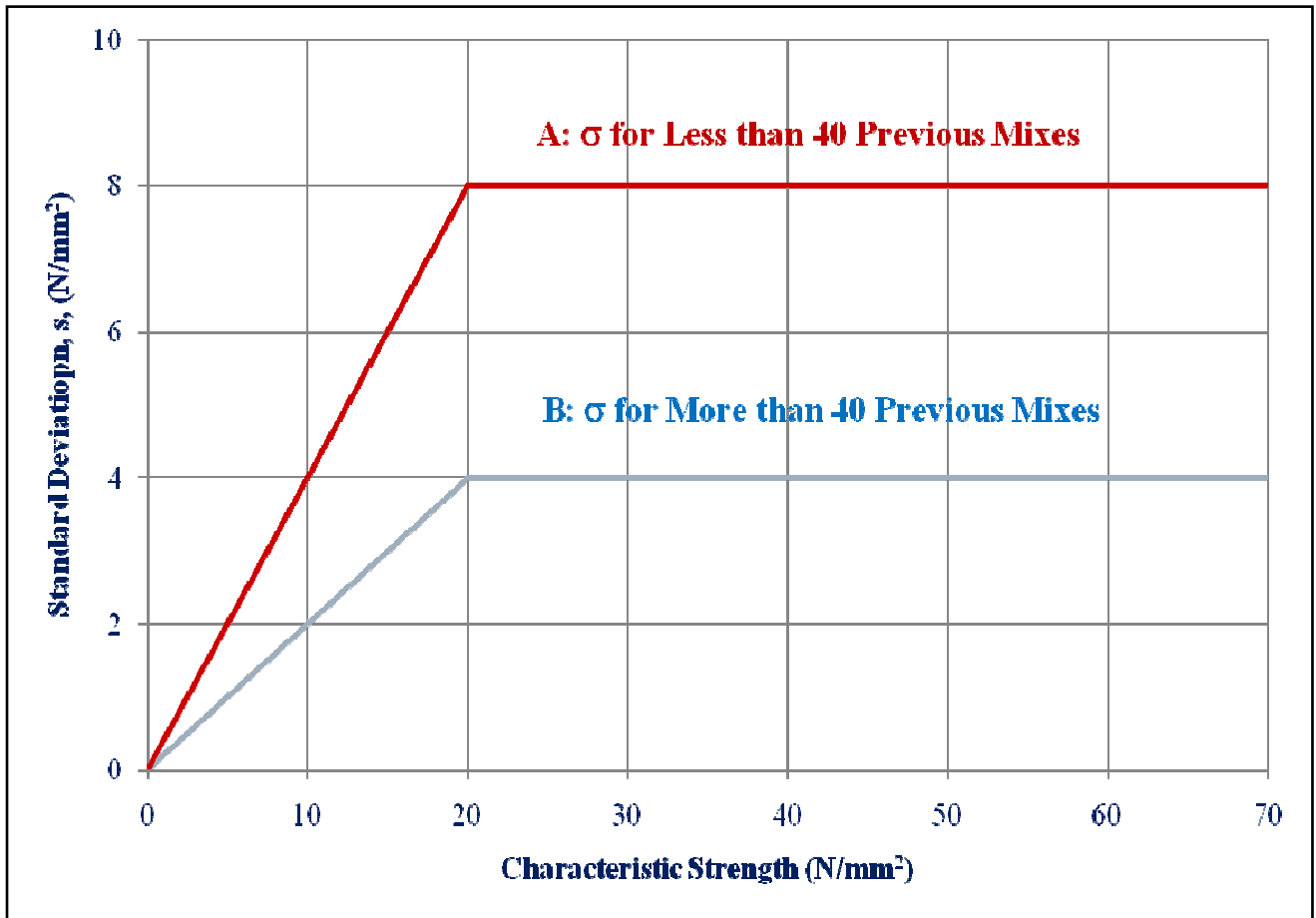
# Concrete Mix Design Charts

**Table 2: Approximate Compressive Strengths (kg/cm<sup>2</sup>) of Concrete Mixes Made with a Free Water/Cement Ratio of 0.5**

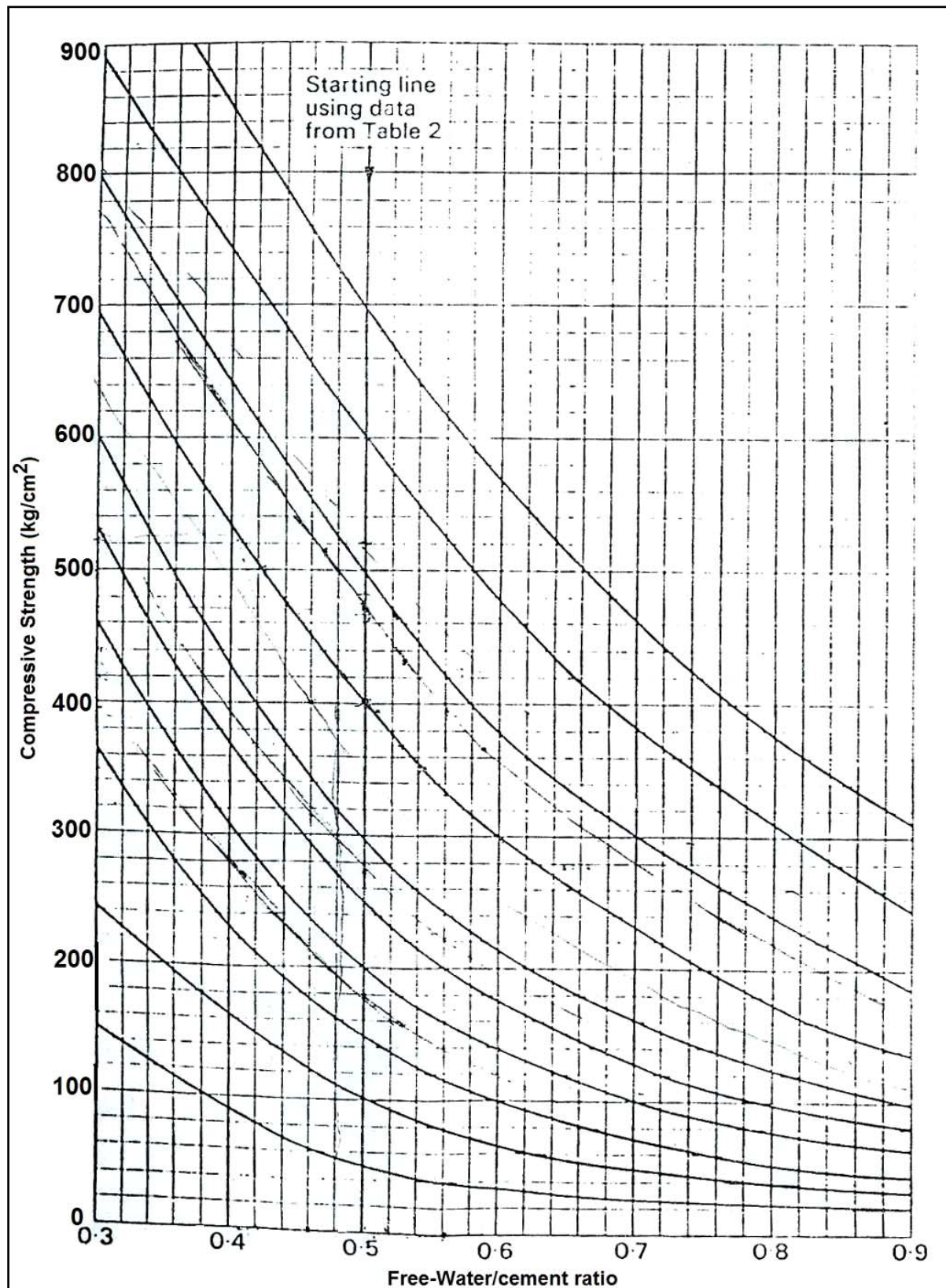
Type of Cement	Type of Coarse Aggregate	Compressive Strength (kg/cm <sup>2</sup> )			
		Age (days)			
		3	7	28	91
(OPC) or (SRPC)	Uncrushed	180	270	400	480
	Crushed	230	330	470	550
(RHPC)	Uncrushed	250	340	460	530
	Crushed	300	400	530	600

**Table 3: Approximate Free-water Contents (kg/m<sup>3</sup>) Required to Give Various Levels of Workability**

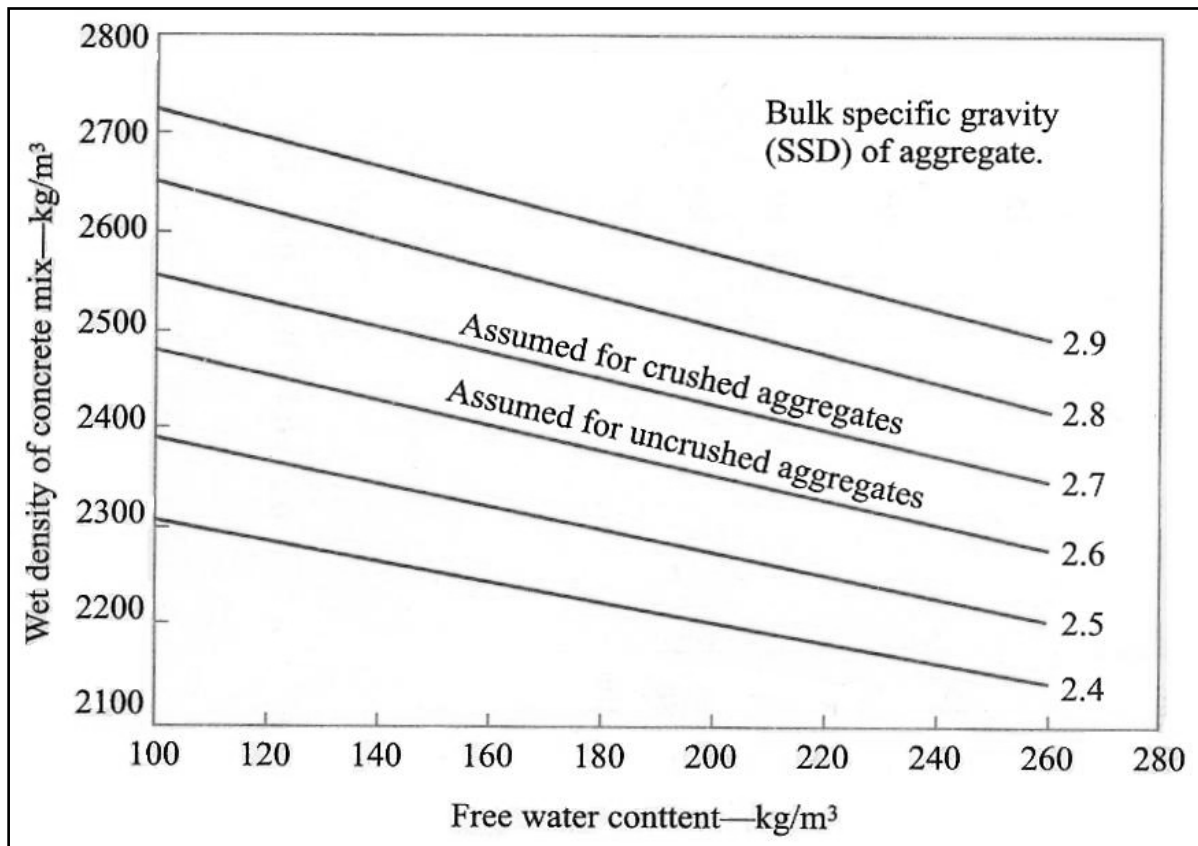
Max size of Aggregate (mm)	Type of Aggregate	Slump (mm)			
		0–10	10–30	30–60	60–180
10	Uncrushed	150	180	205	225
	Crushed	180	205	230	250
20	Uncrushed	135	160	180	195
	Crushed	170	190	210	225
40	Uncrushed	115	140	160	175
	Crushed	155	175	190	205



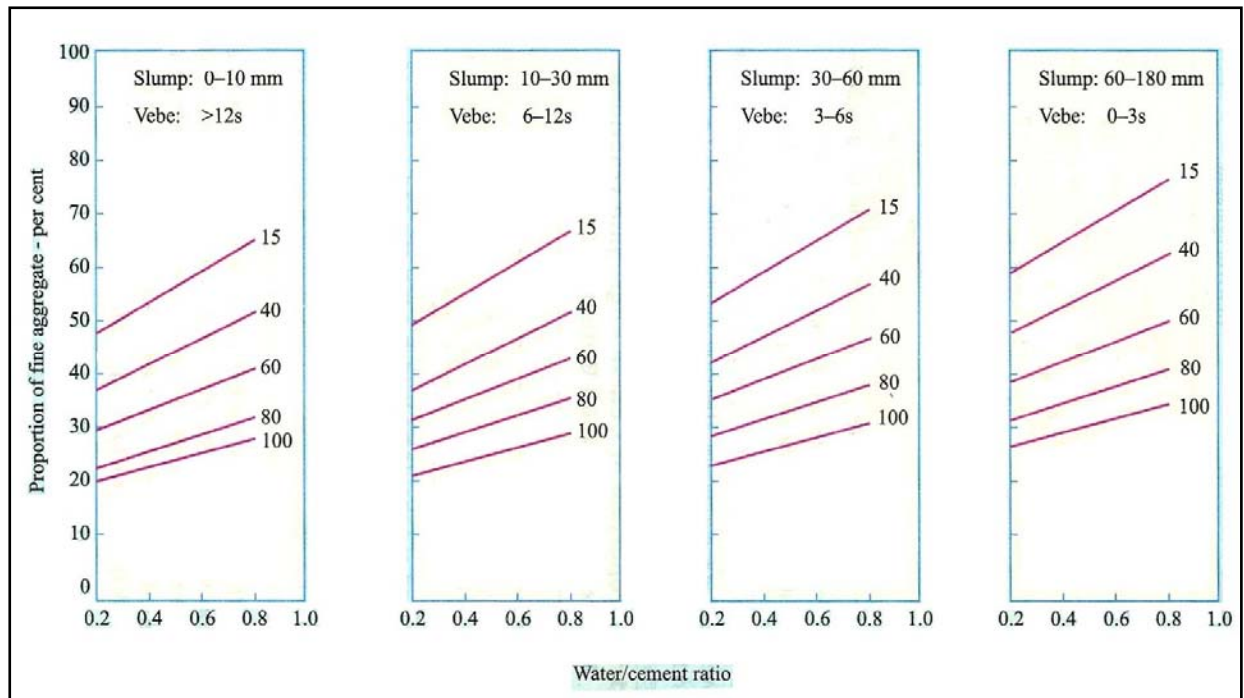
**Figure 3: Relationship between Standard deviation and Characteristic Strength**



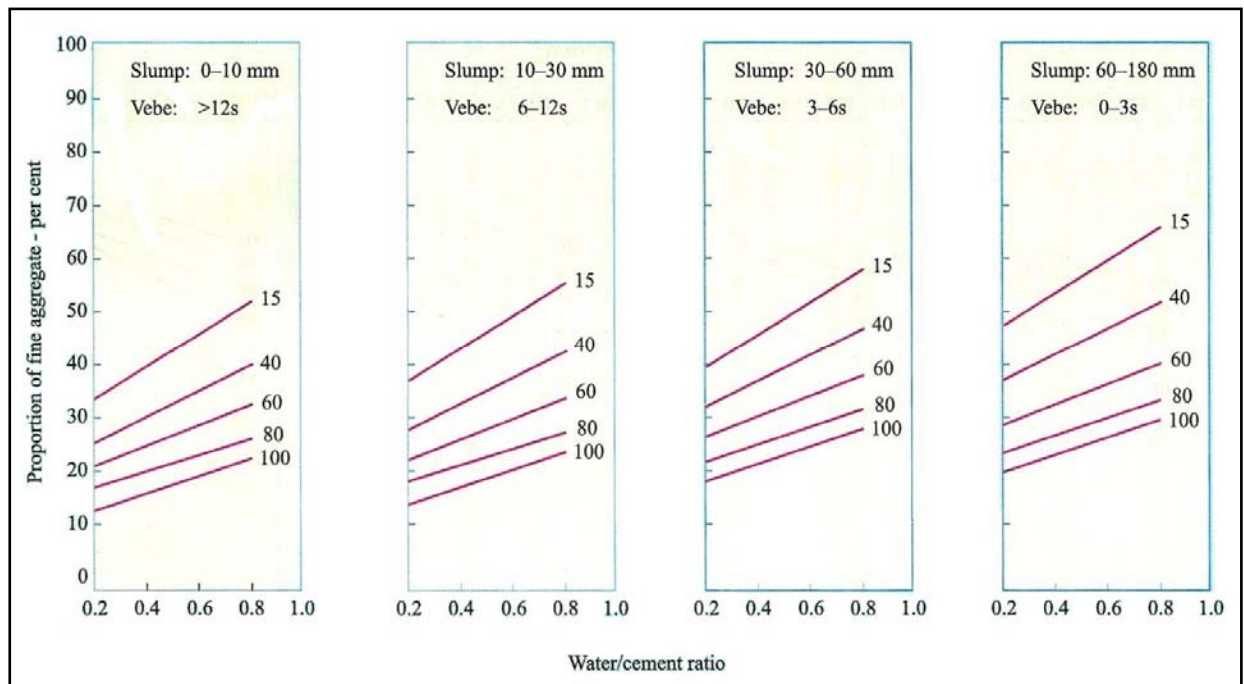
**Figure 4: Relationship between Compressive Strength and Free-Water/Cement Ratio**



**Figure 5: Estimated Wet Density of Fully Compacted Concrete**

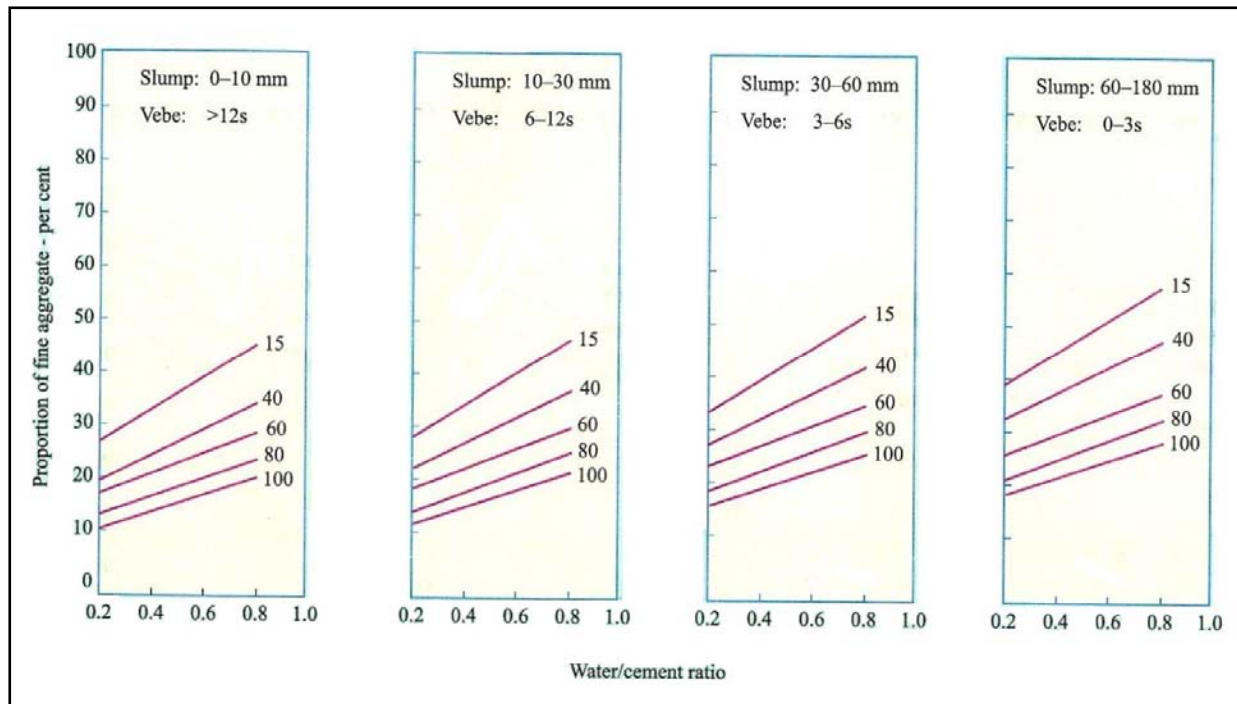


a) Max Aggregate Size 10 mm



b) Max Aggregate Size 20 mm

**Figure 6: Proportion of Fine Aggregate Content**



c) Max Aggregate Size 40 mm

**Figure 6: Proportion of Fine Aggregate Content (continue)**