

PORTLAND CEMENT CONCRETE MIX DESIGN¹ (Continued)
LABORATORY TRIAL BATCH MIX DESIGN SUMMARY

Description	Equivalent Batch Masses (SSD mass/m ³)				
	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5
Materials:					
Cement (kg)	362				
Water (kg)	147				
Coarse aggregate (kg)	1237				
Fine aggregate (kg)	638				
Air entrainer (mL)	769				
Water reducer (mL)	—				
High range water reducer (mL)	—				
Other _____	—				
Properties:					
Water/cement ratio	0.41				
Theoretical unit mass (kg/m ³)	2384				
Measured unit mass (kg/m ³)	2378				
Measured air content (%)	5.3				
Measured slump ² (mm)	100				
Ambient temperature (°C)	17				
Concrete temperature (°C)	*	* Not	measured		
Measured Compressive Strengths (MPa):					
Individual 7-day	16.97				
Individual 7-day	14.03				
Individual 7-day	17.76				
Average (7-day)	16.25				
Individual 28-day	36.27				
Individual 28-day	30.94				
Individual 28-day	27.76				
Average (28-day)	29.64				

¹ For normal mass portland cement concrete (2300 - 2500 kg/m³).

² Measure slump values on concrete before and after addition of high range water reducer if used.