

**CONCRETE MIXING LAB**

Mixture ID	Oven Dry Design Weights (g)					w/c	Batch Water
	Cement	Water	WRA	OD Aggregate Fine      Coarse			
1	1656	488	8.3	1995	2102		
2	1656	488	0	1995	2102		
3	1509	539	4.5	1995	2102		
4	1385	582	0	1995	2102		
5	1113	668	0	1995	2102		

Sand Abs: 1.8%  
Coarse Abs: 0.8%

$$\text{Water in aggregate} = \text{Abs} \cdot M_{od}$$

Water for Fine Aggregate Absorption:

$$\text{Water}_{FA} =$$

Water for Coarse Aggregate Absorption:

$$\text{Water}_{CA} =$$

The mixing water for each mixture can be defined as:

$$\text{Batch Water} = \text{Mix Water} + \text{Water}_{FA} + \text{Water}_{CA}$$

*Mix Water is the water that contributes to the w/c (i.e. initial porosity)*