

D. Samples of shotcrete, micro-concrete, cementitious mortar and grout shall be taken as follows unless otherwise approved by the Engineer.

1. Shotcrete: two 80 x 80 x 20 cm box for 8 cores on daily basis
2. Micro-concrete: 8 cubes (150 mm) for every 10 bags.
3. Cementitious mortar: 8 cubes (150 mm) for every 10 bags.
4. Grout: 8 cubes (150 mm) for every 10 bags.

Testing shall be as follows:

1. Shotcrete:
 - a. Test 3 cores for compressive strength at 7 days and 3 cores at 28 days.
 - b. Dispose of samples when directed by the Engineer.
 - c. Conduct permeability test on every 15th samples or as directed by the Engineer.
 - d. One core for chloride ion content
 - e. One core for sulphate ion content

E. Micro-concrete, cementitious mortar and grout

1. Conduct compressive strength on 3 cubes and permeability on 3 cubes.
2. One cube for chloride ion content
3. One cube for sulphate ion content

F. Aggregates:

<u>Description</u>	<u>Reference</u>	<u>Frequency</u>
(Per size & per sample)		
Organic impurities	ASTM C-40	Once every 1 month and at change of quarry.
Soundness	ASTM C-88	Once every 6 months and at change of quarry.
Fines		ASTM C-117 1/day of use.
Clay, Friable particles	ASTM C-142	1/Month
Gradation	ASTM C-117	1/Day of use
Moisture Content	ASTM C-556	1/Week
Specific gravity	ASTM C-128	Once every 1 month and at change of quarry.