GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No: WRD/QC/F.6-2/Cube -T : 7145,7146,7158,7159,7169,7170,7182,7183,7222/Lab/**119**/2023 - 24 Dated:- 01/07/2023. Laboratory : Bicholim - Goa. 7223,7237,7238,7252,7253,7270,7271,7283,7284,7300,7301,7321,7322,7330,7331,7347,7348,7355,7356,7375,7376,7399,7400. Sub Division V (QC)/WRD/ Bicholim- Goa.

Name of work: Anti Sea Erosion wall from Crematorium to Sunset Point Shack Huddo at Gudem Dando in V.P. Marna-Siolim in Siolim Constituency.

Ref. to Requisition No: SDI/WDI/WRD/F.57/2023-24/67 Dt:- 30/05/2023

Oty. Recived: **32** Sets of cube Date of Receipt:- 05/06/2023.

Tested on: 06,07,08,09,13,14,15,16,17,19,20,21,22,23,24 & 26/06/2023 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix **1:2:4** O.S No: 1443,1444,1456,1457,1467,1468,1480,1481,1519,1520/RK. & Lab. Sample No: 7330 to 7361

845,846,860,861,877,878,896,897,909,910,927,928,949,950,958,959,967,968,990,991,1015,1016/SS. Tested By: Mrs. R.R. Kadam A.E. & Mrs. S.B.Naik Shirodkar. J.E.

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		RESULTS		RESULTS		Max./Min.Value permissable	% above or below	REMARK
	Cement concrete cube of mix 1:2:4 , cast on 09/05/2023. for Foundation & Plinth.	28 th day	226.53	Kg/Cm ²	210.00 Kg/cm ²		Oty represents - 44.00 M3 for two sets of cube.				
1		compressive	206.14	Kg/Cm ²		3.91					
'		strength	222.00	Kg/Cm ²							
		Average	218.22	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 09/05/2023. for Foundation & Plinth.	28 th day	210.67	Kg/Cm ²		5.71	do				
2		compressive	219.73	Kg/Cm ²	210.00 Kg/cm²						
2		strength	235.59	Kg/Cm ²	210.00 Kg/cm ²						
		Average	222.00	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 10/05/2023. for Foundation & Plinth.	28 th day	224.26	Kg/Cm ²	210.00 Kg/cm ²	5.71	Qty represents - 46.00 M3 for two sets of cube.				
3		compressive	233.32	Kg/Cm ²							
3		strength	208.40	Kg/Cm ²							
		Average	222.00	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 10/05/2023. for Foundation & Plinth.	28 th day	203.87	Kg/Cm ²	- 210.00 Kg/cm ²	4.99	do				
4		compressive	231.06	Kg/Cm ²							
4		strength	226.53	Kg/Cm ²							
		Average	220.49	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 11/05/2023. for Foundation & Plinth.	28 th day	215.20	Kg/Cm ²	210.00 Kg/cm ²	8.23	Qty represents - 45.00 M3 for two sets of cube.				
5		compressive	228.79	Kg/Cm ²							
5		strength	237.85	Kg/Cm ²							
		Average	227.28	Kg/Cm ²							

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
	Cement concrete cube of mix 1:2:4 , cast on 11/05/2023. for Foundation & Plinth.	28 th day	201.61	Kg/Cm ²		4.99	
6		compressive	235.59	Kg/Cm ²	210 00 1/2 /2 2		Oty represents - 45.00 M3 for two sets of
0		strength	224.26	Kg/Cm ²	210.00 Kg/cm ²		cube.
		Average	220.49	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4, cast on	28 th day	226.53	Kg/Cm ²	210 00 Kg /cm²	3.91	
7		compressive	210.67	Kg/Cm ²			Oty represents - 43.00 M3 for two sets of
'	12/05/2023. for Foundation & Plinth.	strength	217.47	Kg/Cm ²	210.00 Kg/cm ²	3.71	cube.
		Average	218.22	Kg/Cm ²			
		28 th day	233.32	Kg/Cm ²			
8	Cement concrete cube of mix 1:2:4, cast on	compressive	228.79	Kg/Cm ²	210.00 Kg/cm ²	5.71	do
0	12/05/2023. for Foundation & Plinth.	strength	203.87	Kg/Cm ²	210.00 kg/cm		
		Average	222.00	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 16/05/2023. for Foundation & Plinth.	28 th day	215.20	Kg/Cm ²		6.07	Oty represents - 45.00 M3 for two sets of cube.
9		compressive	219.73	Kg/Cm ²	210.00 Kg/cm ²		
7		strength	233.32	Kg/Cm ²			
		Average	222.75	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 16/05/2023. for Foundation & Plinth.	28 th day	222.00	Kg/Cm ²	210.00 Kg/cm ²	9.31	do
10		compressive	249.18	Kg/Cm ²			
10		strength	217.47	Kg/Cm ²			
		Average	229.55	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 17/05/2023. for 1st Lift.	28 th day	217.47	Kg/Cm ²		7.51	
11		compressive	233.32	Kg/Cm ²	210.00 Kg/cm ²		Oty represents - 46.00 M3 for two sets of
' '		strength	226.53	Kq/Cm ²	2 10.00 kg/cm		cube.
		Average	225.77	Kg/Cm ²			
		28 th day	219.73	Kg/Cm ²		4.63	do
12	Cement concrete cube of mix 1:2:4, cast on	compressive	226.53	Kg/Cm ²	210.00 Kg/cm ²		
12	17/05/2023. for 1st Lift.	strength	212.93	Kg/Cm ²			
		Average	219.73	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 18/05/2023. for Foundation & 1st Lift.	28 th day	226.53	Kg/Cm ²	210.00 Kg/cm ²	6.79	Qty represents - 45.00 M3 for two sets of cube.
13		compressive	215.20	Kg/Cm ²			
13		strength	231.06	Kg/Cm ²			
		Average	224.26	Kg/Cm ²			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		RESULTS		RESULTS		Max./Min.Value permissable	% above or below	REMARK
14		28 th day	226.53	Kg/Cm ²	210.00 Kg/cm ²		Qty represents - 45.00 M3 for two sets of cube.				
	Cement concrete cube of mix 1:2:4 , cast on 18/05/2023. for Foundation & 1st Lift.	compressive	237.85	Kg/Cm ²		6.79					
		strength	208.40	Ka/Cm ²							
		Average	224.26	Ka/Cm ²							
		28 th day	235.59	Ka/Cm ²		7.51					
15	Cement concrete cube of mix 1:2:4, cast on	compressive	226.53	Ka/Cm ²	210.00 Kg/cm ²		Qty represents - 46.00 M3 for two sets of				
	19/05/2023. for Foundation & Plinth.	strength	215.20	Kg/Cm ²	210.00 kg/cm		cube.				
		Average	225.77	Kg/Cm ²							
		28 th day	233.32	Ka/Cm ²							
16	Cement concrete cube of mix 1:2:4, cast on	compressive	244.65	Ka/Cm ²	210.00 Kg/cm ²	12.54	do				
'	19/05/2023. for Foundation & Plinth.	strength	231.06	Ka/Cm ²	210.00 kg/cm						
		Average	236.34	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 20/05/2023. for 2nd Lift & 3rd Lift.	28 th day	240.12	Kg/Cm ²	210.00 Kg/cm ²	13.26	Qty represents - 45.00 M3 for two sets of cube.				
17		compressive	228.79	Kg/Cm ²							
		strength	244.65	Ka/Cm ²							
		Average	237.85	Ka/Cm ²							
		28 th day	235.59	Ka/Cm ²		6.43	do				
18	Cement concrete cube of mix 1:2:4 , cast on 20/05/2023. for 2nd Lift & 3rd Lift.	compressive	219.73	Kg/Cm ²	210.00 Kg/cm ²						
		strength	215.20	Kg/Cm ²							
		Average	223.51	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 22/05/2023. for Foundation & Plinth.	28 th day	231.06	Ka/Cm ²		5.71					
19		compressive	226.53	Ka/Cm ²	210.00 Kg/cm ²		Oty represents - 48.00 M3 for two sets of				
		strength	208.40	Ka/Cm ²			cube.				
		Average	222.00	Kg/Cm ²							
		28 th day	233.32	Kg/Cm ²	210.00 Kg/cm ²	8.95	do				
20	Cement concrete cube of mix 1:2:4 , cast on 22/05/2023. for Foundation & Plinth.	compressive	237.85	Ka/Cm ²							
		strength	215.20	Kg/Cm ²							
		Average	228.79	Ka/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 23/05/2023. for Foundation & Plinth.	28 th day	235.59	Kg/Cm ²	210.00 Kg/cm ²	7.15	Qty represents - 44.00 M3 for two sets of cube.				
21		compressive	226.53	Kg/Cm ²							
		strength	212.93	Kg/Cm ²							
		Average	225.02	Ka/Cm ²							

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		RESULTS		RESULTS		Max./Min.Value permissable	% above or below	REMARK
	Cement concrete cube of mix 1:2:4 , cast on 23/05/2023. for Foundation & Plinth.	28 th day	233.32	Ka/Cm ²	210.00 Kg/cm ²						
22		compressive	217.47	Kg/Cm ²		4.99	Oty represents - 44.00 M3 for two sets of				
		strength	210.67	Kg/Cm ²		4.99	cube.				
		Average	220.49	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on	28 th day	208.40	Ka/Cm ²		7.87					
23		compressive	226.53	Ka/Cm ²	210.00 Kg/cm ²		Qty represents - 44.00 M3 for two sets of				
23	24/05/2023. for Foundation & Plinth.	strength	244.65	Ka/Cm ²	210.00 kg/cm	7.07	cube.				
		Average	226.53	Kg/Cm ²							
		28 th day	215.20	Kg/Cm ²							
24	Cement concrete cube of mix 1:2:4 , cast on 24/05/2023. for Foundation & Plinth.	compressive	235.59	Kg/Cm ²	210.00 Kg/cm ²	9.31	do				
24	24/05/2023. for Foundation & Plinth.	strength	237.85	Ka/Cm ²	210.00 kg/cm		uo				
		Average	229.55	Ka/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 25/05/2023. for 2nd Lift & 3rd Lift.	28 th day	226.53	Ka/Cm ²	210.00 Kg/cm ²	6.43	Qty represents - 45.00 M3 for two sets of cube.				
25		compressive	208.40	Kg/Cm ²							
23		strength	235.59	Kg/Cm ²							
		Average	223.51	Ka/Cm ²							
		28 th day	226.53	Ka/Cm ²	210.00 Kg/cm ²	7.87	do				
26	Cement concrete cube of mix 1:2:4 , cast on 25/05/2023. for 2nd Lift & 3rd Lift.	compressive	235.59	Ka/Cm ²							
20		strength	217.47	Ka/Cm ²							
		Average	226.53	Kg/Cm ²							
	Cement concrete cube of mix 1:2:4 , cast on 26/05/2023. for Foundation & Plinth.	28 th day	226.53	Kg/Cm ²		7.51					
27		compressive	210.67	Ka/Cm ²	210.00 Kg/cm ²		Qty represents - 46.00 M3 for two sets of				
2'		strength	240.12	Ka/Cm ²	2 10.00 kg/cm		cube.				
		Average	225.77	Ka/Cm ²							
		28 th day	237.85	Ka/Cm ²		7.87	do				
28	Cement concrete cube of mix 1:2:4 , cast on 26/05/2023. for Foundation & Plinth.	compressive	226.53	Kg/Cm ²	210.00 Kg/cm ²						
20	26/05/2023. for Foundation & Plinth.	strength	215.20	Kg/Cm ²							
		Average	226.53	Ka/Cm ²							
		28 th day	219.73	Ka/Cm ²	210.00 Kg/cm ²	7.51					
29	Cement concrete cube of mix 1:2:4, cast on 27/05/2023. for 1st Lift & 2nd Lift.	compressive	215.20	Ka/Cm ²			Qty represents - 46.00 M3 for two sets of				
29		strength	242.38	Ka/Cm ²			cube.				
		Average	225.77	Kg/Cm ²							

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
	Cement concrete cube of mix 1:2:4 , cast on 27/05/2023. for 1st Lift & 2nd Lift.	28 th day	226.53	Kg/Cm ²	- 210.00 Kg/cm ²	11.82	Oty represents - 46.00 M3 for two sets of cube.
30		compressive	233.32	Ka/Cm ²			
30		strength	244.65	Ka/Cm ²			
		Average	234.83	Ka/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 29/05/2023. for 2nd Lift & 3rd Lift.	28 th day	231.06	Ka/Cm ²	210.00 Kg/cm ²	10.39	Oty represents - 44.00 M3 for two sets of cube.
31		compressive	237.85	Kg/Cm ²			
31		strength	226.53	Kg/Cm ²			
		Average	231.81	Ka/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 29/05/2023. for 2nd Lift & 3rd Lift.	28 th day	235.59	Ka/Cm ²	210.00 Kg/cm ²	6.79	do
32		compressive	226.53	Ka/Cm ²			
32		strength	210.67	Ka/Cm ²			
		Average	224.26	Kg/Cm ²			

Copy to: 1. The Assistant Engineer, SDI, WDI, WRD, Porvorim - Goa.

- 2. Copy submitted to The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa for kind Information.
- 3. Copy submitted to The Executive Engineer, WDI, WRD, Porvorim Goa.
- 4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer