

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 8367 To 8372, 8396 To 8401, 8412 To 8417,8434 To 8439 / Lab / **381** / 2019 - 20 Dated:- 13 / 01 / 2020.  
Sub Division V (QC)/WRD/ Bicholim- Goa.

**Name of work : Construction of 10 cm thich P.C.C. lining including filter media from Ch. 6.00 Kms to Ch, 7.500 Kms of L.B.M.C. of T.I.P. in Nandoda village in Bicholim Taluka.**

Ref. to Requisition No.: S.D. II /W.D. VIII /W.R.D. / F.160 / 2019-20 / **152** Dated :- 06 / 01 / 2020.

Qty. Recived : 24 Sets of cube Date of Receipt:- 07/ 01 / 2020. Tested on: - 07/01/2020 To 11 /01/2020 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 1.5 : 3 O.S No. : 2956 To 2961,2987 To 2992,2998 To 3003,3024 To 3029/SS. Lab. Sample No.: 7540 To 7563

**REPORT PAGE 01 OF 04**

Tested By: Mrs. S.B. Naik Shirodkar. J.E.

SR.N O.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	265.04	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.86	1) Quantity represents 195.00 Cum for six sets of cubes cast on 10/12/2019. 2) Cube test is witnessed by Shri. Paresh Polekar, representative of M/s. Ultracon Constructions Pvt Ltd on 07/01/2020.
			271.83	Kg/Cm <sup>2</sup>			
			280.89	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>272.59</b>	<b>Kg/Cm<sup>2</sup></b>			
2	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	276.36	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	4.00	--- do ---
			267.30	Kg/Cm <sup>2</sup>			
			283.16	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>275.61</b>	<b>Kg/Cm<sup>2</sup></b>			
3	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	260.51	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	1.72	--- do ---
			269.57	Kg/Cm <sup>2</sup>			
			278.63	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>269.57</b>	<b>Kg/Cm<sup>2</sup></b>			
4	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	267.30	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.43	--- do ---
			274.10	Kg/Cm <sup>2</sup>			
			280.89	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>274.10</b>	<b>Kg/Cm<sup>2</sup></b>			

Junior Engineer

Assistant Engineer

**REPORT PAGE 02 OF 04**

SR.N O.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
5	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	283.16	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.15	1) Quantity represents 195.00 Cum for six sets of cubes cast on 10/12/2019. 2) Cube test is witnessed by Shri. Paresh Polekar, representative of M/s. Ultracon Constructions Pvt Ltd on
			265.04	Kg/Cm <sup>2</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>273.34</b>	<b>Kg/Cm<sup>2</sup></b>			
6	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 10/12/2019, for Canal lining from Ch. 6.00 Kms To 6.142 Kms.	28 <sup>th</sup> day compressive strength	280.89	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.29	--- do ---
			255.97	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>271.08</b>	<b>Kg/Cm<sup>2</sup></b>			
7	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	249.18	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.43	Quantity represents 190.00 Cum for six sets of cubes cast on 12 / 12 / 2019.
			278.63	Kg/Cm <sup>2</sup>			
			294.48	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>274.10</b>	<b>Kg/Cm<sup>2</sup></b>			
8	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	280.89	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	6.57	--- do ---
			294.48	Kg/Cm <sup>2</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>282.40</b>	<b>Kg/Cm<sup>2</sup></b>			
9	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	287.69	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.15	--- do ---
			271.83	Kg/Cm <sup>2</sup>			
			260.51	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>273.34</b>	<b>Kg/Cm<sup>2</sup></b>			
10	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	267.30	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.72	--- do ---
			287.69	Kg/Cm <sup>2</sup>			
			269.57	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>274.85</b>	<b>Kg/Cm<sup>2</sup></b>			
11	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	253.71	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.01	--- do ---
			271.83	Kg/Cm <sup>2</sup>			
			285.42	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>270.32</b>	<b>Kg/Cm<sup>2</sup></b>			
12	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 12 /12 /2019, for Canal lining from Ch. 6.142 Kms To 6.280 Kms.	28 <sup>th</sup> day compressive strength	303.55	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	5.43	--- do ---
			271.83	Kg/Cm <sup>2</sup>			
			262.77	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>279.38</b>	<b>Kg/Cm<sup>2</sup></b>			

Junior Engineer

Assistant Engineer

**REPORT PAGE 03 OF 04**

<b>SR.N O.</b>	<b>DISCRIPTION OF SAMPLE</b>	<b>TESTED FOR</b>	<b>RESULTS</b>		<b>Max./Min.Value permissable</b>	<b>% above or below</b>	<b>REMARK</b>
13	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	289.95	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	7.71	Quantity represents 188.75 Cum for six sets of cubes cast on 13 / 12 / 2019.
			294.48	Kg/Cm <sup>2</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>285.42</b>	<b>Kg/Cm<sup>2</sup></b>			
14	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	274.10	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	8.85	--- do ---
			303.55	Kg/Cm <sup>2</sup>			
			287.69	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>288.44</b>	<b>Kg/Cm<sup>2</sup></b>			
15	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	260.51	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.86	--- do ---
			280.89	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>272.59</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	285.42	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	5.14	--- do ---
			278.63	Kg/Cm <sup>2</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>278.63</b>	<b>Kg/Cm<sup>2</sup></b>			
17	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	285.42	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	4.29	--- do ---
			267.30	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>276.36</b>	<b>Kg/Cm<sup>2</sup></b>			
18	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 13 / 12 / 2019, for Canal lining from Ch. 6.280 Kms To 6.420 Kms.	28 <sup>th</sup> day compressive strength	301.28	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	9.99	--- do ---
			289.95	Kg/Cm <sup>2</sup>			
			283.16	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>291.46</b>	<b>Kg/Cm<sup>2</sup></b>			
19	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 / 12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	253.71	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.58	Quantity represents 186.30 Cum for six sets of cubes cast on 14 / 12 / 2019.
			283.16	Kg/Cm <sup>2</sup>			
			278.63	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>271.83</b>	<b>Kg/Cm<sup>2</sup></b>			
20	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 / 12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	280.89	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.15	--- do ---
			271.83	Kg/Cm <sup>2</sup>			
			267.30	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>273.34</b>	<b>Kg/Cm<sup>2</sup></b>			

Junior Engineer

Assistant Engineer

**REPORT PAGE 04 OF 04**

<b>SR.N O.</b>	<b>DISCRIPTION OF SAMPLE</b>	<b>TESTED FOR</b>	<b>RESULTS</b>		<b>Max./Min.Value permissible</b>	<b>% above or below</b>	<b>REMARK</b>
21	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 /12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	283.16	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.43	Quantity represents 186.30 Cum for six sets of cubes cast on 14 / 12 / 2019.
			262.77	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>274.10</b>	<b>Kg/Cm<sup>2</sup></b>			
22	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 /12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	294.48	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	7.42	--- do ---
			271.83	Kg/Cm <sup>2</sup>			
			287.69	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>284.67</b>	<b>Kg/Cm<sup>2</sup></b>			
23	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 /12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	269.57	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	5.14	--- do ---
			289.95	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>278.63</b>	<b>Kg/Cm<sup>2</sup></b>			
24	Plain Cement concrete cube of mix <b>1 : 1.5 : 3</b> , cast on 14 /12 / 2019, for Canal lining from Ch. 6.420 Kms To 6.555 Kms.	28 <sup>th</sup> day compressive strength	265.04	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	5.71	--- do ---
			280.89	Kg/Cm <sup>2</sup>			
			294.48	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>280.14</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SDII , WD VIII, WRD, Tivim, Bardez - Goa.

2. Copy submitted to The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa for kind Information.

3. Copy submitted to The Executive Engineer,WD VIII ,WRD, Karaswada -Bardez - Goa.

4. QC Lab File.      5. Bill File.

Junior Engineer

Assistant Engineer