

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T :2284,2285,2305,2306,2307,2308,/ Lab /**140**/ 2021 - 22 Dated:-05/07/2021. Laboratory : Bicholim - Goa  
2337,2338,2343,2344,2365,2366,2409,2410,2419,2420,2421,2422,2430,2431,2441,2442,2457,2458 Sub Division V (QC)/WRD/ Bicholim- Goa.

**Name of work : Construction of Open type Bandhara across Bicholim river at Gaonkarwada at Bicholim.**

Ref. to Requisition No.:WRD/ WDV1/SDI/F.W.220/2021-22/98 Dated :- 11/ 06 / 2021.

Qty. Recived. :24 Sets of cube Date of Receipt:-11 /06/ 2021. Tested on: -16,18,21,22,24,26,27,28,29,30/06/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1:2:4 O.S

No.:6517,6518,6538,6539,6540,6541,6570,6571,6576,6577,6600,6601,6648,6649,6658,6659,6660,6661,6670,6671,6682,6683,6698,6699/SS

Lab. Sample No.: 1804 to 1827 Tested By: Mrs.Shirodkar. J.E.

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/05/2021. PCC for Upstream cutoff.	28 <sup>th</sup> day compressive strenath	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.91	Qty represents - 10.00 Cum for two sets of cubes.
			210.67	Kg/Cm <sup>2</sup>			
			208.40	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.22</b>	<b>Kg/Cm<sup>2</sup></b>			
2	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/05/2021. PCC for Upstream cutoff.	28 <sup>th</sup> day compressive strenath	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.27	---do---
			226.53	Kg/Cm <sup>2</sup>			
			212.93	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.98</b>	<b>Kg/Cm<sup>2</sup></b>			
3	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 21/05/2021. PCC for Pier foundation.	28 <sup>th</sup> day compressive strenath	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.55	Qty represents - 23.00 Cum for four sets of cubes.
			203.87	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>217.47</b>	<b>Kg/Cm<sup>2</sup></b>			
4	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 21/05/2021. PCC for Pier foundation.	28 <sup>th</sup> day compressive strenath	219.73	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	----- do -----
			212.93	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>	<b>Kg/Cm<sup>2</sup></b>			
5	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 21/05/2021. PCC for Pier foundation.	28 <sup>th</sup> day compressive strenath	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.48	----- do -----
			226.53	Kg/Cm <sup>2</sup>			
			203.87	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>215.20</b>	<b>Kg/Cm<sup>2</sup></b>			
6	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 21/05/2021. PCC for Pier foundation.	28 <sup>th</sup> day compressive strenath	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.07	----- do -----
			212.93	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.75</b>	<b>Kg/Cm<sup>2</sup></b>			

Junior Engineer

Assistant Engineer

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<b>SR. NO</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>
7	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 24/05/2021. PCC for Upstream apron.	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.99	Qty represents - 23.00 Cum for two sets of cubes.
			217.47	Kg/Cm <sup>2</sup>			
			217.47	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>220.49</b>			
8	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 24/05/2021. PCC for Upstream apron.	28 <sup>th</sup> day compressive strength	210.67	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	----- do -----
			215.20	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>219.73</b>			
9	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 25/05/2021. PCC for Upstream apron.	28 <sup>th</sup> day compressive strength	222.00	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.99	Qty represents - 23.00 Cum for two sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			212.93	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>220.49</b>			
10	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 25/05/2021. PCC for Upstream apron.	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.51	----- do -----
			219.73	Kg/Cm <sup>2</sup>			
			242.38	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>225.77</b>			
11	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	219.73	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	Qty represents - 12.00 Cum for two sets of cubes.
			208.40	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>222.00</b>			
12	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.43	----- do -----
			222.00	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>223.51</b>			
13	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 29/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.87	Qty represents - 21.00 Cum for two sets of cubes.
			215.20	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>226.53</b>			

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<b>SR. NO</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>
14	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 29/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.51	Qty represents - 21.00 Cum for two sets of cubes.
			235.59	Kg/Cm <sup>2</sup>			
			224.26	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>225.77</b>	<b>Kg/Cm<sup>2</sup></b>			
15	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 30/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	16.14	Qty represents - 47.00 Cum for four sets of cubes.
			249.18	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>243.89</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 30/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.35	----do---
			212.93	Kg/Cm <sup>2</sup>			
			219.73	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.24</b>	<b>Kg/Cm<sup>2</sup></b>			
17	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 30/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	203.87	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.87	----do---
			235.59	Kg/Cm <sup>2</sup>			
			240.12	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>226.53</b>	<b>Kg/Cm<sup>2</sup></b>			
18	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 30/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	224.26	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.20	----do---
			203.87	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>216.71</b>	<b>Kg/Cm<sup>2</sup></b>			
19	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 31/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	253.71	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	14.70	Qty represents - 16.00 Cum for two sets of cubes.
			237.85	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>240.87</b>	<b>Kg/Cm<sup>2</sup></b>			
20	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 31/05/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	240.12	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	13.26	----do---
			237.85	Kg/Cm <sup>2</sup>			
			235.59	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>237.85</b>	<b>Kg/Cm<sup>2</sup></b>			

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<b>SR. NO</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>
21	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 01/06/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.27	Qty represents - 32.00 Cum for two sets of cubes.
			217.47	Kg/Cm <sup>2</sup>			
			208.40	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.98</b>	<b>Kg/Cm<sup>2</sup></b>			
22	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 01/06/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	208.40	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.87	----do---
			244.65	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>226.53</b>	<b>Kg/Cm<sup>2</sup></b>			
23	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 02/06/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	210.67	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	9.67	Qty represents - 23.00 Cum for two sets of cubes.
			249.18	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>230.30</b>	<b>Kg/Cm<sup>2</sup></b>			
24	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 02/06/2021. PCC for Downstream cutoff.	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.99	----do---
			219.73	Kg/Cm <sup>2</sup>			
			215.20	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>220.49</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SD I , WD VI, WRD,Bicholim - 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 VI ,WRD, Bicholim- Goa.

4. QC Lab File.      5. Bill File.

Junior Engineer

Assistant Engineer