

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 2684 to 2692,2695 to 2701/ Lab /173/ 2021 - 22 Dated:-17/09/2021. Laboratory : Bicholim - Goa.

Sub Division V (QC)/WRD/ Bicholim- Goa.

**Name of work :Supplying Raw water to the proposed 30 MLD water treatment plant at Tuem for PWD and to Irrigate 165.00Ha of Command Area in Pernem, Tuem, Korgao and Palyem villages by pumping water from Chainage 22.00kms of R.B.M.C Of T.I.P at Dhargal in Pernem Taluka." Part I Construction of pump house and Rising main.**

Ref. to Requisition No.: SDII/WDVII/WRD/F.351/20-21/115 Dt.:- 02/ 09 /2021.

Qty. Received. : 16 Sets of cube Date of Receipt:- 03/ 09/ 2021. Tested on: -03,04,05,06/09/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix PCC 1 : 2 : 4 & RCC 1:1.5:3 O.S No. : 6930 to 6938,6942 to 6948/SS. Lab. Sample No.: 2196 To 2211 Tested By: Mrs. Shirodkar. J.E.

**REPORT PAGE 01 OF 03**

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 06/08/2021. PCC for Thrust blocks Ch 6510 to Ch 8000m.	28 <sup>th</sup> day compressive strength	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	13.26	Qty represents - 15.00 Cum.
			258.24	Kg/Cm <sup>2</sup>			
			219.73	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>237.85</b>			
2	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 07/08/2021. RCC for Thrust blocks Ch 6610 (90deg).	28 <sup>th</sup> day compressive strength	260.51	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	4.29	Qty represents - 30.00 Cum for two sets of cubes.
			271.83	Kg/Cm <sup>2</sup>			
			296.75	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>276.36</b>			
3	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 07/08/2021. RCC for Thrust blocks Ch 6610 (90deg).	28 <sup>th</sup> day compressive strength	305.81	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	10.27	----- do -----
			294.48	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>292.22</b>			
4	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 07/08/2021. RCC for Thrust blocks Ch 6860 (45deg).	28 <sup>th</sup> day compressive strength	292.22	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	13.69	Qty represents - 15.00 Cum.
			308.08	Kg/Cm <sup>2</sup>			
			303.55	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>301.28</b>			
5	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 07/08/2021. RCC for Thrust blocks Ch 6860 (22.5deg).	28 <sup>th</sup> day compressive strength	283.16	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	5.14	
			271.83	Kg/Cm <sup>2</sup>			
			280.89	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>278.63</b>			

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REPORT PAGE 02 OF 03

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
6	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 08/08/2021. RCC for Thrust block Ch 6940 (90 deg bend).	28 <sup>th</sup> day compressive strength	305.81	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	9.99	Qty represents - 30.00 Cum for two sets of cubes.
			289.95	Kg/Cm <sup>2</sup>			
			278.63	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>291.46</b>	<b>Kg/Cm<sup>2</sup></b>			
7	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 08/08/2021. RCC for Thrust block Ch 6940 (90 deg bend).	28 <sup>th</sup> day compressive strength	301.28	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	10.56	----- do -----
			283.16	Kg/Cm <sup>2</sup>			
			294.48	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>292.97</b>	<b>Kg/Cm<sup>2</sup></b>			
8	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 08/08/2021. RCC for Thrust block Ch 7030 (45 deg bend).	28 <sup>th</sup> day compressive strength	271.83	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	6.00	Qty represents - 15.00 Cum.
			294.48	Kg/Cm <sup>2</sup>			
			276.36	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>280.89</b>	<b>Kg/Cm<sup>2</sup></b>			
9	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 08/08/2021. RCC for Thrust block Ch 7045 (45 deg bend).	28 <sup>th</sup> day compressive strength	262.77	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	3.43	Qty represents - 15.00 Cum.
			276.36	Kg/Cm <sup>2</sup>			
			283.16	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>274.10</b>	<b>Kg/Cm<sup>2</sup></b>			
10	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7385 (22.5 deg ).	28 <sup>th</sup> day compressive strength	278.63	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	12.27	Qty represents - 13.00 Cum.
			303.55	Kg/Cm <sup>2</sup>			
			310.34	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>297.50</b>	<b>Kg/Cm<sup>2</sup></b>			
11	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7395 (11.25 deg ).	28 <sup>th</sup> day compressive strength	265.04	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	2.58	Qty represents - 5.00 Cum.
			278.63	Kg/Cm <sup>2</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>271.83</b>	<b>Kg/Cm<sup>2</sup></b>			
12	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7485 (22.50 deg ).	28 <sup>th</sup> day compressive strength	262.77	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	6.85	Qty represents - 5.00 Cum.
			283.16	Kg/Cm <sup>2</sup>			
			303.55	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>283.16</b>	<b>Kg/Cm<sup>2</sup></b>			
13	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7535 (11.25 deg ).	28 <sup>th</sup> day compressive strength	271.83	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	6.57	Qty represents - 4.00 Cum.
			283.16	Kg/Cm <sup>2</sup>			
			292.22	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>282.40</b>	<b>Kg/Cm<sup>2</sup></b>			

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**REPORT PAGE 03 OF 03**

<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>
14	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7615 (22.5 deg ).	28 <sup>th</sup> day compressive strength	271.83	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	9.13	Qty represents - 5.00 Cum.
			305.81	Kg/Cm <sup>2</sup>			
			289.95	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>289.20</b>	<b>Kg/Cm<sup>2</sup></b>			
15	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7705 (22.5 deg ).	28 <sup>th</sup> day compressive strength	292.22	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	4.57	Qty represents - 5.00 Cum.
			271.83	Kg/Cm <sup>2</sup>			
			267.30	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>277.12</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Cement concrete cube of mix <b>1 : 1.5: 3</b> , cast on 09/08/2021. RCC for Thrust block Ch 7710 (45 deg ).	28 <sup>th</sup> day compressive strength	308.08	Kg/Cm <sup>2</sup>	265.00 Kg/cm <sup>2</sup>	11.41	Qty represents - 6.00 Cum.
			292.22	Kg/Cm <sup>2</sup>			
			285.42	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>295.24</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SD I , WDVII , WRD,Dhargal-Pernem - 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 VII ,WRD, Dhargal-Pernem- Goa.

4. QC Lab File.      5. Bill File.

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