

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 366 TO368, 370 TO372, 376 TO378, 385 to387,390 to392, 396 , 411 to413, 419 to 422, 425 to 430 / Lab / **196** / 2020 - 21
Dated:- 12 / 01 / 2021 Laboratory : Bicholim - Goa.

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

Name of work : Improvement to the R.B.M.C. of T.I.P. by providing 100mm thick RCC Lining from Ch.0.00 kms to Ch.6.020 kms excluding Hassapur aqueduct and Kalna aqueduct between chainage 4.165 to 4.227 and 4.772 to 5.117 kms at village Ankane-Hassapur and Hali in Pernem Taluka

Ref. to Requisition No.: F.353/SDI/WDVII/WRD/2020-21/173 dt. 27/11/2020.

Qty. Received. : 29 Sets of cube Date of Receipt:- 28 / 11 / 2020. Tested on: - 07/12/2020 To 23 /12/2020 Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 3 : 6 & 1:1.5:3, O.S No.4355 to 4357, 4363 to 4365, 4377 to4379, 4389 to4391, 4399 to 4401, 4406, 4426 to 4428, 4434 to 4437, 4440 to 4442 & 4447 to4449 : /SS. Lab. Sample No.: 9591 TO 9619 Tested By: Mrs. S.B. Naik Shirodkar. J.E.

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
1	Cement concrete cube of mix 1 : 3 : 6 , cast on 09/11/2020, P.C.C. for foundation Ch-4.227 to Ch-4.317 mts. (P49)	28 th day compressive strength	140.45	Kg/Cm ²	100.00 Kg/cm ²	23.83	Qty represents - 60.00 Cum.
			122.32	Kg/Cm ²			
			108.73	Kg/Cm ²			
		Average	123.83	Kg/Cm²			
2	Cement concrete cube of mix 1 : 3 : 6 , cast on 09/11/2020, P.C.C. for foundation Ch-4.227 to Ch-4.317 mts. (P49)	28 th day compressive strength	124.59	Kg/Cm ²	100.00 Kg/cm ²	27.61	Qty represents - 60.00 Cum.
			135.92	Kg/Cm ²			
			122.32	Kg/Cm ²			
		Average	127.61	Kg/Cm²			
3	Cement concrete cube of mix 1 : 3 : 6 , cast on 09/11/2020, P.C.C. for foundation Ch-4.227 to Ch-4.317 mts. (P49)	28 th day compressive strength	126.85	Kg/Cm ²	100.00 Kg/cm ²	24.59	Qty represents - 60.00 Cum.
			131.39	Kg/Cm ²			
			115.53	Kg/Cm ²			
		Average	124.59	Kg/Cm²			
4	Cement concrete cube of mix 1 : 3 : 6 , cast on 10/11/2020, P.C.C. for foundation Ch-4.317 to Ch-4.407 mts. (P50)	28 th day compressive strength	133.65	Kg/Cm ²	100.00 Kg/cm ²	29.88	Qty represents - 60.00 Cum.
			126.85	Kg/Cm ²			
			129.12	Kg/Cm ²			
		Average	129.88	Kg/Cm²			

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5	Cement concrete cube of mix 1 : 3 : 6 , cast on 10/11/2020, P.C.C. for foundation Ch-4.317 to Ch-4.407 mts. (P50)	28 th day compressive strength	117.79	Kg/Cm ²	100.00 Kg/cm ²	20.81	Qty represents - 60.00 Cum.
			124.59	Kg/Cm ²			
			120.06	Kg/Cm ²			
		Average	120.81	Kg/Cm²			
6	Cement concrete cube of mix 1 : 3 : 6 , cast on 10/11/2020, P.C.C. for foundation Ch-4.317 to Ch-4.407 mts. (P50)	28 th day compressive strength	115.53	Kg/Cm ²	100.00 Kg/cm ²	19.30	Qty represents - 60.00 Cum.
			113.26	Kg/Cm ²			
			129.12	Kg/Cm ²			
		Average	119.30	Kg/Cm²			
7	Cement concrete cube of mix 1 : 3 : 6 , cast on 11/11/2020, P.C.C. for foundation Ch-4.407 to Ch-4.497 mts. (P51)	28 th day compressive strength	135.92	Kg/Cm ²	100.00 Kg/cm ²	29.12	Qty represents - 60.00 Cum.
			122.32	Kg/Cm ²			
			129.12	Kg/Cm ²			
		Average	129.12	Kg/Cm²			
8	Cement concrete cube of mix 1 : 3 : 6 , cast on 11/11/2020, P.C.C. for foundation Ch-4.407 to Ch-4.497 mts. (P51)	28 th day compressive strength	131.39	Kg/Cm ²	100.00 Kg/cm ²	27.61	Qty represents - 60.00 Cum.
			126.85	Kg/Cm ²			
			124.59	Kg/Cm ²			
		Average	127.61	Kg/Cm²			
9	Cement concrete cube of mix 1 : 3 : 6 , cast on 11/11/2020, P.C.C. for foundation Ch-4.407 to Ch-4.497 mts. (P51)	28 th day compressive strength	106.47	Kg/Cm ²	100.00 Kg/cm ²	17.04	Qty represents - 60.00 Cum.
			129.12	Kg/Cm ²			
			115.53	Kg/Cm ²			
		Average	117.04	Kg/Cm²			
10	Cement concrete cube of mix 1 : 3 : 6 , cast on 12/11/2020, P.C.C. for foundtion Ch-4.497 to Ch-4.587 mts. (P52)	28 th day compressive strength	108.73	Kg/Cm ²	100.00 Kg/cm ²	20.06	Qty represents - 40.00 Cum.
			138.18	Kg/Cm ²			
			113.26	Kg/Cm ²			
		Average	120.06	Kg/Cm²			
11	Cement concrete cube of mix 1 : 3 : 6 , cast on 12/11/2020, P.C.C. for foundtion Ch-4.497 to Ch-4.587 mts. (P52)	28 th day compressive strength	111.00	Kg/Cm ²	100.00 Kg/cm ²	17.79	Qty represents - 40.00 Cum.
			124.59	Kg/Cm ²			
			117.79	Kg/Cm ²			
		Average	117.79	Kg/Cm²			

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12	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/11/2020, P.C.C. for Sleeper concrete Ch-4.227 to Ch-4.772 mts. (P53)	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	4.00	Qty represents - 20.00 Cum.
			276.36	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	275.61	Kg/Cm²			
13	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/11/2020, P.C.C. for Sleeper concrete Ch-5.117 to Ch-6.020 mts. (P54)	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 20.00 Cum.
			289.95	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
14	Cement concrete cube of mix 1 : 3 : 6 , cast on 13/11/2020, P.C.C. for foundation Ch-4.587 to Ch-4.772 mts. (P55)	28 th day compressive strength	135.92	Kg/Cm ²	100.00 Kg/cm ²	24.59	Qty represents - 40.00 Cum.
			124.59	Kg/Cm ²			
			113.26	Kg/Cm ²			
		Average	124.59	Kg/Cm²			
15	Cement concrete cube of mix 1 : 3 : 6 , cast on 13/11/2020, P.C.C. for foundation Ch-4.587 to Ch-4.772 mts. (P55)	28 th day compressive strength	126.85	Kg/Cm ²	100.00 Kg/cm ²	23.83	Qty represents - 40.00 Cum.
			120.06	Kg/Cm ²			
			124.59	Kg/Cm ²			
		Average	123.83	Kg/Cm²			
16	Cement concrete cube of mix 1 : 3 : 6 , cast on 14/11/2020, P.C.C. for Foundation Ch-4.587 to Ch-4.772 mts. (P56)	28 th day compressive strength	126.85	Kg/Cm ²	100.00 Kg/cm ²	30.63	Qty represents - 20.00 Cum.
			126.85	Kg/Cm ²			
			138.18	Kg/Cm ²			
		Average	130.63	Kg/Cm²			
17	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 20/11/2020, R.C.C.for lining Ch-4.227 to Ch-4.277 mts. (P57)	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	5.71	Qty represents - 60.00 Cum.
			262.77	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	280.14	Kg/Cm²			
18	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 20/11/2020, R.C.C.for lining Ch-4.227 to Ch-4.277 mts. (P57)	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	2.58	Qty represents - 60.00 Cum.
			271.83	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	271.83	Kg/Cm²			

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19	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 20/11/2020, R.C.C.for lining Ch-4.227 to Ch-4.277 mts. (P57)	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	6.57	Qty represents - 60.00 Cum.
			312.61	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	282.40	Kg/Cm²			
20	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 22/11/2020, R.C.C.for lining Ch-4.277 to Ch-4.327 mts. (P58)	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	10.27	Qty represents - 60.00 Cum.
			283.16	Kg/Cm ²			
			299.01	Kg/Cm ²			
		Average	292.22	Kg/Cm²			
21	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 22/11/2020, R.C.C.for lining Ch-4.277 to Ch-4.327 mts. (P58)	28 th day compressive strength	317.14	Kg/Cm ²	265.00 Kg/cm ²	14.83	Qty represents - 60.00 Cum.
			292.22	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	304.30	Kg/Cm²			
22	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 22/11/2020, R.C.C.for lining Ch-4.277 to Ch-4.327 mts. (P58)	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	11.70	Qty represents - 60.00 Cum.
			328.46	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	295.99	Kg/Cm²			
23	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 23/11/2020, R.C.C. for lining Ch-4.327 to Ch-4.357 mts. (P59)	28 th day compressive strength	244.65	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 20.00 Cum.
			305.81	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
24	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 24/11/2020, R.C.C. for lining Ch-4.357 to Ch-4.407 mts. (P60)	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 60.00 Cum.
			280.89	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
25	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 24/11/2020, R.C.C. for lining Ch-4.357 to Ch-4.407 mts. (P60)	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/cm ²	3.15	Qty represents - 60.00 Cum.
			271.83	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	273.34	Kg/Cm²			

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26	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 24/11/2020, R.C.C. for lining Ch-4.357 to Ch-4.407 mts. (P60)	28 th day compressive strength	312.61	Kg/Cm ²	265.00 Kg/cm ²	14.83	Qty represents - 60.00 Cum.
			317.14	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	304.30	Kg/Cm²			
27	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 25/11/2020, R.C.C. for lining Ch-4.407 to Ch-4.457 mts.(P61)	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	8.85	Qty represents - 60.00 Cum.
			260.51	Kg/Cm ²			
			308.08	Kg/Cm ²			
		Average	288.44	Kg/Cm²			
28	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 25/11/2020, R.C.C. for lining Ch-4.407 to Ch-4.457 mts.(P61)	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	4.00	Qty represents - 60.00 Cum.
			262.77	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	275.61	Kg/Cm²			
29	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 25/11/2020, R.C.C. for lining Ch-4.407 to Ch-4.457 mts.(P61)	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	6.28	Qty represents - 60.00 Cum.
			283.16	Kg/Cm ²			
			258.24	Kg/Cm ²			
		Average	281.65	Kg/Cm²			

Copy to: 1. The Assistant Engineer , SDI , WD VII, 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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