

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 514 to 516,523to525,533to536 /Lab /**201** /2020 - 21 Dated:- 19 / 01 / 2021 Laboratory : Bicholim - Goa.

563 To 565, 582 To 586, 596 To 600 & 610 To 615

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

Name of work : Construction of 10cm thick PCC lining including filter media from Ch.6.00 Km to Ch. 7.50 Km of LBMC of TIP in Nandoda Village in Bicholim Taluka.

Ref. to Requisition No.: SDII/WDVIII/WRD/F.160/2020-21/160 dt. 29/12/2020.

Qty. Recived. : 29 Sets of cube Date of Receipt:- 04 / 01 / 2021. Tested on: - 04/01/2021 To 10 /01/2021 Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 1.5 : 3 O.S No. : 45684575,4583,4584,4607,4623,4624,4637,4638,4647&4648/SS. Lab. Sample No.: 9996 to1000 & 01 to 24 Tested By: Mrs. S.B. Naik Shirodkar. J.E. Cube test is witnessed by Shri.Raghuvir R. Gadekar JE,SDII,WDVIII,WRD & Shri. Sandeep representative of agency M/S. Ultracon Construction PVT.LTD. on 08/01/2021.

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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 1 : 1.5 : 3 , cast on 07/12/2020, For lining Ch. 7.128 km to Ch. 7.168 km	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	8.56	Qty represents - 55.00 Cum for three sets of cubes.
			296.75	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	287.69	Kg/Cm²			
2	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/12/2020, For lining Ch. 7.128 km to Ch. 7.168 km	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			258.24	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
3	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/12/2020, For lining Ch. 7.128 km to Ch. 7.168 km	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	3.43	----- do -----
			265.04	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
4	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 08/12/2020, For lining Ch. 7.168 km to Ch. 7.210 km	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 58.00 Cum.
			271.83	Kg/Cm ²			
			299.01	Kg/Cm ²			
		Average	276.36	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
5	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 08/12/2020, For lining Ch. 7.168 km to Ch. 7.210 km	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 58.00 Cum.
			283.16	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	278.63			
6	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 08/12/2020, For lining Ch. 7.168 km to Ch. 7.210 km	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	6.00	Qty represents - 58.00 Cum.
			303.55	Kg/Cm ²			
			255.97	Kg/Cm ²			
			Average	280.89			
7	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/12/2020, For lining Ch. 7.210 km to Ch. 7.270 km	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	7.71	Qty represents - 82.00 Cum for four sets of cubes.
			271.83	Kg/Cm ²			
			287.69	Kg/Cm ²			
			Average	285.42			
8	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/12/2020, For lining Ch. 7.210 km to Ch. 7.270 km	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	7.42	----- do -----
			308.08	Kg/Cm ²			
			253.71	Kg/Cm ²			
			Average	284.67			
9	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/12/2020, For lining Ch. 7.210 km to Ch. 7.270 km	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	4.00	----- do -----
			296.75	Kg/Cm ²			
			276.36	Kg/Cm ²			
			Average	275.61			
10	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/12/2020, For lining Ch. 7.210 km to Ch. 7.270 km	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			276.36	Kg/Cm ²			
			294.48	Kg/Cm ²			
			Average	277.12			
11	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 10/12/2020, For lining Ch. 7.270 km to Ch. 7.310 km	28 th day compressive strength	287.69	Kg/Cm ²	265.00 Kg/cm ²	9.99	Qty represents - 54.00 Cum for three sets of cubes.
			296.75	Kg/Cm ²			
			289.95	Kg/Cm ²			
			Average	291.46			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
12	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 10/12/2020, For lining Ch. 7.270 km to Ch. 7.310 km	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 54.00 Cum for three sets of cubes.
			249.18	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
13	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 10/12/2020, For lining Ch. 7.270 km to Ch. 7.310 km	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	5.14	----- do -----
			260.51	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	278.63	Kg/Cm²			
14	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/12/2020, For lining Ch. 7.310 km to Ch. 7.380 km	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	9.42	Qty represents - 95.00 Cum for five sets of cubes.
			314.87	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	289.95	Kg/Cm²			
15	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/12/2020, For lining Ch. 7.310 km to Ch. 7.380 km	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	7.71	----- do -----
			278.63	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	285.42	Kg/Cm²			
16	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/12/2020, For lining Ch. 7.310 km to Ch. 7.380 km	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	4.29	----- do -----
			296.75	Kg/Cm ²			
			258.24	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
17	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/12/2020, For lining Ch. 7.310 km to Ch. 7.380 km	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.00	----- do -----
			253.71	Kg/Cm ²			
			301.28	Kg/Cm ²			
		Average	275.61	Kg/Cm²			
18	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/12/2020, For lining Ch. 7.310 km to Ch. 7.380 km	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	8.56	----- do -----
			262.77	Kg/Cm ²			
			310.34	Kg/Cm ²			
		Average	287.69	Kg/Cm²			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
19	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/12/2020, For lining Ch. 7.380 km to Ch. 7.450 km	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/cm ²	5.43	Qty represents - 95.00 Cum for five sets of cubes.
			294.48	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	279.38			
20	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/12/2020, For lining Ch. 7.380 km to Ch. 7.450 km	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	3.43	----- do -----
			280.89	Kg/Cm ²			
			258.24	Kg/Cm ²			
			Average	274.10			
21	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/12/2020, For lining Ch. 7.380 km to Ch. 7.450 km	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	9.99	----- do -----
			287.69	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	291.46			
22	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/12/2020, For lining Ch. 7.380 km to Ch. 7.450 km	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	9.13	----- do -----
			289.95	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	289.20			
23	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/12/2020, For lining Ch. 7.380 km to Ch. 7.450 km	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			283.16	Kg/Cm ²			
			258.24	Kg/Cm ²			
			Average	277.12			
24	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	6.85	Qty represents - 80.00 Cum for six sets of cubes.
			265.04	Kg/Cm ²			
			305.81	Kg/Cm ²			
			Average	283.16			
25	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	8.28	----- do -----
			274.10	Kg/Cm ²			
			292.22	Kg/Cm ²			
			Average	286.93			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
26	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	10.84	Qty represents - 80.00 Cum for six sets of cubes.
			278.63	Kg/Cm ²			
			299.01	Kg/Cm ²			
			Average	293.73			
27	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	6.57	----- do -----
			276.36	Kg/Cm ²			
			265.04	Kg/Cm ²			
			Average	282.40			
28	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	308.08	Kg/Cm ²	265.00 Kg/cm ²	8.56	----- do -----
			271.83	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	287.69			
29	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 13/12/2020, For lining Ch. 7.450 km to Ch. 7.500 km & Ch. 6.360 km to Ch. 6.260 km.	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	11.70	----- do -----
			296.75	Kg/Cm ²			
			287.69	Kg/Cm ²			
			Average	295.99			

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.

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