

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 3101, 3102,3105,3106,3111,3112,3119,3120,3125,3126,/ Lab /301/ 2021 - 22 Dated:- 18/ 02/2022. Laboratory : Bicholim - Goa.  
3135,3143,3152,3161, 3162,3175,3176,3180,3181,3193 & 3194 Sub Division V (QC)/WRD/Goa.

**Name of work :** Construction of flood protection wall at Bhatirwada in village Morjim in Pernem taluka.

Ref. to Requisition No.: MI/SDIII/WDI/F-58/2021-22/369 Dt.:-02/02/ 2022

Qty. Recived. : 21 Sets of cube Date of Receipt:- 02/02/ 2022. Tested on: - 03,04,05,07,08,09,10,11,12,14,15 & 16/02/2022 as per due dates. Ref to CPWD :2009, Vol. I

Sample:Cube Mix PCC 1:2:4 O.SNo.:7558,7559,7565,7566,7576,7577,7586,7587,7595,7596,7605,7614,7626,7636,7637,7650,7651,7659,7660,7675 & 7676/SS Lab. Sample No.: 2853  
To 2873 Tested By: Mrs. S.B. Naik Shirodkar. J.E.

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SR.N O.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Valu e permissible	% above or below	REMARK
1	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 06/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.87	Qty represents - 30.00 Cum for two sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			208.40	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>226.53</b>	<b>Kg/Cm<sup>2</sup></b>			
2	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 06/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	240.12	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	12.90	--do--
			237.85	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>237.10</b>	<b>Kg/Cm<sup>2</sup></b>			
3	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 07/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	240.12	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	14.70	Qty represents - 32.00 Cum for two sets of cubes.
			235.59	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>240.87</b>	<b>Kg/Cm<sup>2</sup></b>			
4	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 07/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	240.12	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	12.90	--do--
			226.53	Kg/Cm <sup>2</sup>			
			244.65	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>237.10</b>	<b>Kg/Cm<sup>2</sup></b>			
5	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 08/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	208.40	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	1.04	Qty represents - 30.00 Cum for two sets of cubes.
			217.47	Kg/Cm <sup>2</sup>			
			210.67	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>212.18</b>	<b>Kg/Cm<sup>2</sup></b>			
6	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 08/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	228.79	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	--do--
			212.93	Kg/Cm <sup>2</sup>			
			217.47	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>	<b>Kg/Cm<sup>2</sup></b>			

Junior Engineer

Assistant Engineer

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<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>
7	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 10/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	12.18	Qty represents - 30.00 Cum for two sets of cubes.
			249.18	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>235.59</b>			
8	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 10/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	260.51	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	17.58	--do--
			244.65	Kg/Cm <sup>2</sup>			
			235.59	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>246.91</b>			
9	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 11/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	262.77	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	17.94	Qty represents - 35.00 Cum for two sets of cubes.
			253.71	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>247.67</b>			
10	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 11/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	11.82	--do--
			226.53	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>234.83</b>			
11	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 12/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	224.26	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	11.47	Qty represents - 18.00 Cum.
			233.32	Kg/Cm <sup>2</sup>			
			244.65	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>234.08</b>			
12	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 13/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	260.51	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	17.58	Qty represents - 16.00 Cum.
			244.65	Kg/Cm <sup>2</sup>			
			235.59	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>246.91</b>			
13	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 14/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	237.85	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	8.95	Qty represents - 18.00 Cum.
			226.53	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>228.79</b>			
14	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 15/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	Qty represents - 38.00 Cum for two sets of cubes.
			212.93	Kg/Cm <sup>2</sup>			
			219.73	Kg/Cm <sup>2</sup>			
			<b>Average</b>	<b>219.73</b>			

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SR.N O.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Valu e permissable	% above or below	REMARK
15	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 15/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	208.40	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.79	Qty represents - 38.00 Cum for two sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>224.26</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 17/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	233.32	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	9.31	Qty represents - 30.00 Cum for two sets of cubes.
			237.85	Kg/Cm <sup>2</sup>			
			217.47	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>229.55</b>	<b>Kg/Cm<sup>2</sup></b>			
17	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 17/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	208.40	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.20	--do--
			219.73	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>			
18	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 18/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	262.77	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	15.42	Qty represents - 28.00 Cum for two sets of cubes.
			237.85	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>242.38</b>	<b>Kg/Cm<sup>2</sup></b>			
19	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 18/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	258.24	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	16.50	--do--
			249.18	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>244.65</b>	<b>Kg/Cm<sup>2</sup></b>			
20	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	8.23	Qty represents - 30.00 Cum for two sets of cubes.
			237.85	Kg/Cm <sup>2</sup>			
			217.47	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>227.28</b>	<b>Kg/Cm<sup>2</sup></b>			
21	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/01/2022. For Protection wall.	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	11.47	--do--
			231.06	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>234.08</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SD III , WDI , WRD,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 , WDI ,WRD, Porvorim - Goa.

4. QC Lab File.      5. Bill File.

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Assistant Engineer