

**GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT**

**Test Report No.:** WRD/Q.C. / F.6-4 /Aggr-T- 267,268/Lab/300/2022-23   **Dated:** 06/03/2023.   **Laboratory:** Bicholim-Goa  
**Sand –T:** 5359,5360. **Laterite Stone-T:-** 0460. **Cement-T:** 1418   **Sub Div:** V (QC)/W.D.VIII/Bicholim Goa.

**Sub:** Construction of wall for Nallah from main road to the river for protecting the Paddy fields at Pandav waddo Chodan Madel in Mayem Constituency.

**Ref to requisition No:-** F.246/WRD/WDVI/SDI/437/22-23   **Dated:** 27/02/2023.

**Qty. Received:** 1 bags each   **Date of Receipt:** 28/02/2023   **Tested on:** 01,02,03 & 04/03/2023   **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968

**Sample:** Sand, 20mm,   **O.S. No.** 977/RK & 327,328,340,335,322/SS.   **Lab. Sample No.:** 6356 To 6361

12.50mm size Aggr, Laterite Stone and Cement.

**Tested by:** Mrs. R.R. Kadam A.E. & Mrs. S.B. Naik Shirodkar J.E.

**R E P O R T 01 OF 02**

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
1.	<b>20 mm Size Aggregate:</b>	Particle size distribution:	It is single sized aggregate of 20.00 mm nominal size.	(Qty. rep. – m <sup>3</sup> )	
2.	<b>12.50 mm Size Aggregate:</b>	Particle size distribution:	It is not single sized aggregate of 12.50 mm nominal size.	(Qty. rep. – m <sup>3</sup> )	
<b>REMARK:</b> After blending 20 mm aggregate with 12.50 mm aggregates at the ratio of <b>1:1</b> by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	<b>Coarse Sand:</b> (L.S.No.6358)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.20 % : - 4.08 % : - 2.56 % : - III		
<b>REMARK:</b> The observed results are within the permissible limits of the Coarse sand.					
4.	<b>Fine- Sand</b> (L.S.No.6359)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.60 % : - 4.25 % : - 2.06 % : - IV		
<b>REMARK:</b> The observed results are within the permissible limits of the Fine sand.					

Junior Engineer

Assistant Engineer

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12.50mm size Aggr, Laterite and Cement.

**Tested by:** Mrs. R.R. Kadam A.E. & Mrs. S.B. Naik Shirodkar J.E.

**R E P O R T 02 OF 02**

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
5.	<u>Laterite stone</u>	A) Compressive strength test :-	i) 38.50 Kg /cm <sup>2</sup> <b>35.00kg/cm<sup>2</sup></b> ii) 40.77 Kg /cm <sup>2</sup> iii) 38.50 Kg /cm <sup>2</sup> Avg. <b>39.26</b> Kg/cm <sup>2</sup>		Remark: - The average Compressive strength achieved is <b>12.17 %More</b> than the specified value of <b>35 Kg/cm<sup>2</sup></b> .
		B) Water Absorption Test :-	i) 10.49 % ii) 11.11 % iii) 9.28 % Avg. <b>10.29 %</b>		Remark: The average water absorption is <b>10.29 %</b> ,less than the maximum permissible limit of <b>12%</b> .
6.	<u>Cement:</u> Jyoti OPC 43 Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W-Invisible, M-02, Y- 2023 CM/L = 6894808 Qty. rep. – To be used for–	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.13 % : 33.00 % : 145 minutes : 275 minutes	----- (It should not be more than 10%) (It should be in the neighborhood of 35%) ---- (It should not be less than 30 minutes) -- (It should not be more than 600 minutes)	<b>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</b>

Copy to: 1. The Assistant Engineer, SDI, WDVI,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,WDVI,WRD, Bicholim-Goa.

4. Q.C. Lab file 5. Bill File.

**Junior Engineer**

**Assistant Engineer**