

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

Test Report No.: WRD/Q.C. / F.6-4 /Aggr-T- 215,216/Lab/206/2022-23 **Dated:** 12/12/2022. **Laboratory:** Bicholim-Goa
Sand –T: 5321,5322. **Laterite Stone-T:-** 0456. **Cement-T:** 1391 **Sub Div:** V (QC)/W.D.VIII/Bicholim Goa.

Sub: Providing Irrigation Facility with Automation System for the agricultural land at V.P Surla in Sanquelim Constituency.

Ref to requisition No:- F.237/WRD/WDVI/SDI/318/2022-23 **Dated:** 01/12/2022.

Qty. Received: 1 bags each **Date of Receipt:** 05/12/2022 **Tested on:** 07,08 & 09/12/2022 **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 9533, 9534,9536,9537,9529,9530/SS. **Lab. Sample No.:** 5451 To 5456 **Tested by:** Mrs. S.B. Naik Shirodkar J.E.
12.50mm size Aggr, Sand, and Cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20.00 mm nominal size.	(Qty. rep. – m ³)	
2.	12.50 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.50 mm nominal size.	(Qty. rep. – m ³)	
REMARK: After blending 20 mm aggregate with 12.50 mm aggregates at the ratio of 1:1 by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	Coarse Sand: (L.S.No.5453)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.00 % : - 4.44 % : - 3.16 % : - I		
REMARK: The observed results are within the permissible limits of the Coarse sand.					
4.	Fine- Sand (L.S.No.5454)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.10 % : - 4.87 % : - 1.97 % : - IV		
REMARK: The observed results are within the permissible limits of the Fine sand.					

Junior Engineer

Assistant Engineer

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12.50mm size Aggr, Sand, and Cement

R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
5.	Laterite stone	A) Compressive strength test:	- i) 39.46 Kg /cm ² 35.00kg/cm² ii) 31.72 Kg /cm ² iii) 41.65 Kg /cm ² Avg. 37.60 Kg/cm ²		Remark: - The average Compressive strength achieved is 7.43 %More than the specified value of 35 Kg/cm² .
		B) Water Absorption Test.	i) 10.50 % ii) 11.00 % iii) 10.00 % Avg. 10.50 %		Remark: The average water absorption is 10.50 % ,less than the maximum permissible limit of 12% .
6.	Cement: JK OPC 43 Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W-47, M-11, Y- 2022 CM/L =_0003401033 Qty. rep. – To be used for–		i) Fineness of Cement : 1.28 % ----- (It should not be more than 10%) ii) Consistency of cement : 31.50 % (It should be in the neighborhood of 35%) iii) Initial Setting Time : 140 minutes ---- (It should not be less than 30 minutes) iv) Final Setting Time : 295 minutes -- (It should not be more than 600 minutes)		REMARK: The observed results are within the permissible limit for Ordinary Portland cement.

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