

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

Test Report No.: WRD/Q.C. / F.6-4 /Aggr-T- 223,224/Lab/214/2022-23 **Dated:** 21/12/2022.

Laboratory: Bicholim-Goa

Sand –T: 5328,5329 **Cement-T:** 1396

Sub Div: V (QC)/W.D.VIII/Bicholim Goa.

Sub: Testing of materials for the work of Construction of Raw Water Pumping Station at Amthane for Dumacem water treatment and Industrial Estate at Latambarcem in Bicholim Taluka.

Ref to requisition No:- WRD/S.D.I/W.D.VI/F.247/2022-23/329 **Dated:** 12/12/2022.

Qty. Received: 1 bags each **Date of Receipt:** 14/12/2022 **Tested on:** 16,17,19 & 20/12/2022. **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 835,844,845/RK & 9579,9580/SS. **Lab. Sample No.:** 5491 To 5495 **Tested by:** Mrs. S.B. Naik Shirodkar J.E. & Mrs. R.R. Kadam A.E.
12.5mm size Aggr, Sand, and Cement

R E P O R T 01 OF 01

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
1.	Cement: JK Super 43 Grade Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W-42, M-11, Y- 2022 CM/L =_0003401033 Qty. rep. – ____-- To be used for -----	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	:- 1.28 % :- 31.50 % :- 165 minutes :- 320 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)	
REMARK: The observed results are within the permissible limit for Ordinary Portland cement.					
2.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --m ³)	
3.	12.5 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – -- m ³)	
REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:1 by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.					
4.	Crushed Sand: (L.S.No.5494)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	:- 13.100% :- 13.33% :- 2.82% :- II	(Limit of Deleterious material is 15.00% for crushed sand)	
REMARK: The observed results are within the permissible limits for crushed sand (Fine Aggregate) vide table 2 of IS 383: 2016(Clause 5.2.1).					
5.	River Sand : (L.S.No.5495)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	:- 5.00 % :- 4.65 % :- 2.24 % :- III		
REMARK: The observed results are within the permissible limits of the Coarse sand.					

Copy to:1. The Assistant Engineer, SD I, WD VI, W.R.D. 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, WD VI, W.R.D. Bicholim-Goa.

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

Assistant Engineer