

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T- 311,312/Lab/44/2023-24 **Dated:-** 06/05/2023.

Laboratory: Bicholim-Goa

Sand –T:- 5384. **Cement-T:-** 1441.

Sub Div: V (QC)/WRD/Bicholim Goa.

Sub:- Augmentation of Right Bank Main Canal of T.I.P at ch 12.950 km from Kalna river to secure uninterrupted raw water supply for drinking, agricultural and industrial purpose during the annual canal maintenance period of TIP dam and its appurtenances.

Ref to requisition No:- SDIV/WDVII/WRD/F.19/2023-24/06 **Dated :-** 19/04/2023

Qty. Received: 1 bags each **Date of Receipt:-** 28/04/2023 **Tested on:-** 28/04/2023 & 02,04,05/05/2023. **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, **O.S. NO:-** 1147, 1148/RK & 790, 762/SS. **Lab. Sample No :-** 7017 to 7020 **Tested by:-** Mrs. R.R. Kadam A.E. & Mrs. S. B. Naik Shirodkar J.E.
10mm size Aggr, and Cement

R E P O R T 01 O F 01

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	20.00 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --m ³)	
2.	10 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 10 mm nominal size.	(Qty. rep. – -- m ³)	
REMARK: After blending 20 mm aggregate with 10 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.	Crushed Sand: (L.S.No.7019)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	:- 13.80% :- 12.69% :- 2.81% :- 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).					
4.	Cement: JK OPC 43 Grade Cement, bearing IS:269 Ordinary Portland cement, Manuf. date: W-M-Invisible,Y-2023 CM/L = 0003401033 Qty. rep. –.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	:- 1.19% :- 30.00% :- 150 minutes :- 280 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)	
To be used for - REMARK: The observed results are within the permissible limit for Ordinary Portland cement.					

Copy to:1. The Assistant Engineer, SDIV, WDVII, WRD, Dhargal Pernem– Goa.

2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.

3. Copy Submitted to The Executive Engineer, WDVII, WRD, Dhargal Pernem– Goa.

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

Junior Engineer

Assistant Engineer