

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

Test Report No.: WRD/Q.C./F.6-4/ Aggr -T- 9717, 9718 /Lab/ 190 /2020-21

Dated: 08/ 01 / 2021.

Laboratory: Bicholim

Sand –T: 5080. Cement: T:1211

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

Sub: Supplying Raw Water to the proposed 30MLD Water Treatment Plant at Tuem for P.W.D and to irrigate 165.00 Ha of command in Pernem, Tuem, Korgao and Palyem villages by pumping water from chainage 22.00 kms R.B.M.C of T.I.P at Dhargal in Pernem Taluka. Part I- Construction of intake chamber, pump house, manifold suction/delivery line, pump accessories, electrical accessories, transformer & sub station & Rising Main.

Ref to requisition No: /F.351/SDI/WDVII/WRD/2020-21/195 Dated: 26/12/2020.

Qty. Received: 1 bags each **Date of Receipt:** 26/12/2020 **Tested on:** 30,31/12/2020 & 01/01/2021 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

Sample: Sand ,20mm, **O.S. No.** 4418,4419, 4431, & 4426/SS **Lab. Sample No.:** 9845 To 9848 **Tested by:** Mrs. S. B. Naik Shirodkar.JE.
12.5mm size aggrt.

R E P O R T 01 OF 01

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – -- m ³)	
2.	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 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	Crushed Sand: (L.S.No.9847)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 8.60% : - 10.63% : - 3.27 : - I	(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: J.K.Cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week <u>49</u> , Month <u>11</u> , Year' <u>2020</u> . CM/L = <u>0003401033</u> Qty. rep. – _____.		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.15 % : 32.00% : 160 minutes : 300 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 limits of the coarse sand.					

Copy to: 1. The Assistant Engineer, SDI, 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