

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T-9635, 9636 /Lab/ 102 /2020-21

Dated: 23/ 07/2020.

Laboratory: Bicholim

Sand –T: 5030 & Cement T: 1172 .

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

Sub: Supplying Raw water to Mopa airport by pumping water from ch. 17.30 km of RBMC of TIP at Nagzer village in Pernem Talika.

Ref to requisition No: SDII/WDVII/WRD/F. 132/2020-21/52 Dated: 22/07/2020.

Qty. Received: 1 bags each **Date of Receipt:** 22/07/2020 **Tested on:** 22 & 23/07/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

Sample: M. Sand, 20mm, 12.5mm size aggrt, & Cement **O.S. No.** 4070,4071,4072 & 4073 /SS **Lab. Sample No.:** 9317 To 9320 **Tested by:** Mrs. S.B. Naik Shirodkar, JE.

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.	M. Sand: (L.S.No.9319)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 14.20% : - 13.54% : - 2.672 : - 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: Zuari cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week 23, Month 06, Year'2020. CM/L = 0006077671 Qty. rep. – _____.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.11 % : 32.00% : 170 minutes : 285 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 – RCC 1:1.5:3 for retaining wall. REMARK: The observed results are within the permissible limit for Ordinary Portland cement.					

Copy to: 1. The Assistant Engineer, SDII, 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, W.D.VII, WRD, Dhargal, Pernem – Goa.

4. Q.C. Lab file

5. Bill File.

Junior Engineer

Assistant Engineer