

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

Test Report No.: WRD/Q.C./F.6-4/ Aggr-T- 9480 TO 9483,Sand-T-4942,4943, Cement-T-1114 /Lab/ **317** / 2019-20 **Dated:-** 04 / 12 / 2019.

Laboratory: Bicholim –Goa.

Sub DivV/ (QC)/WRD/Bicholim – Goa.

Sub: Improvement to canal lining by providing RCC lining from Ch. 6.400 Km To Ch. 6.950 Km of R.B.M.C. of T.I.P. at Hali and Chandel in Pernem Taluka

Ref to requisition No: WRD/ SD I/ WDVII / F357/ 2019-20/222 **Dated:** - 26 / 11 / 2019

Qty. Received: 1 bags each **Date of Receipt:** 26 / 11 / 2019 **Tested on:** 26 & 27/11/2019 **Ref to Specification:** CPWD 2002, Vol. I & IS: 4031, 1968

Sample: 20mm, 12mm size aggrt. Sand(2Nos), J,K, cement 43 grade **O.S. No. :** 1161/AF to 1167/AF **Lab. Sample No.:** 6960 TO 6966.

Tested by: Mr. Anil R. Fadte , J.E.

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	20 mm Size Aggregate: (L.S.No 6960 & 6961)	Particle size distribution:	It is single sized aggregate of 20 mm nominal size	(Qty. - rep.)	
2.	12 mm Size Aggregate: (L.S.No 6962 & 6963)	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. - rep.)	
REMARK: After blending 20 mm aggregate with 12 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.	Coarse Sand: - (L. S. No. 6964)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 3.80 % : - 4.25 % : - 2.58 : - II	(Qty. rep.)	
REMARK: The observed results are within the permissible limits of the Coarse Sand.					
3.	Coarse Sand: - (L.S.No.6965)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.20 % : - 5.32 % : - 2.460 : - III.	(Qty. rep.)	
REMARK: The observed results are within the permissible limits of the Coarse Sand.					
4.	J.K., Super Cement: J.K. cement. OPC,43 Grade Ordinary Portland cement, Manuf. date: Week 46, Month 11, Year'2019. CM/L =0003401033 Qty. rep. To be used for – For PCC 1:3:6,1:2:4.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.376 % : 31.00 % : 155 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)	
REMARK:- The observed results are within the permissible limit for tested Ordinary Portland cement.					

Copy to: 1. The Assistant Engineer, S. D. I, WD VII, WRD , Dhargal – Pernem – Goa.

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

3. Submitted to The Executive Engineer, W.D. VII, WRD, Dhargal – Pernem – Goa

4. Q.C. Lab file

5. Bill File

Junior Engineer

Assistant Engineer