

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

Test Report No.: WRD/Q.C./F.6-4/ Aggr-T- 9474 To 9477,Sand-T-4938 & 4939, Cement-T-1112 /Lab/ **315** / 2019-20 **Dated:- 04 / 12 / 2019.**

Laboratory: Bicholim –Goa.

Sub DivV/ (QC)/WRD/Bicholim – Goa.

Sub: Restoring of lining, Improvement to Super Passage at Ch. 16.600 Km and Inspection Path from Ch. 0.00Km To Ch. 1.00KM & Ch.8.800 Km To 9.320 Km of R.B.M.C. of T.I.P. in Pernem Taluka.

Ref to requisition No: WRD/ SD I/ WDVII / F358/ 2019-20/220 **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. :** 1148/AF to 1155/AF **Lab. Sample No.:** 7021 TO 7027.

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 7021 & 7022)	Particle size distribution:	It is single sized aggregate of 20 mm nominal size	(Qty. - rep.)	
2.	12 mm Size Aggregate: (L.S.No 7023 & 7024)	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.	Fine Sand: - (L. S. No. 7025)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.40 % : - 5.26 % : - 1.89 : - IV	(Qty. rep.)	
REMARK: The observed results are within the permissible limits of the Fine Sand.					
3.	Coarse Sand: - (L.S.No.7026)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.00 % : - 4.17 % : - 2.85 : - II.	(Qty. rep.)	
REMARK: The observed results are within the permissible limits of the Coarse Sand.					
4.	J.K., OPC 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	: 1.16 % : 31.00 % : 145 Minutes : 265 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