

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

**Test Report No.:** WRD/Q.C./F.6-4/ Aggr-T- 9540, 9541,Sand-T-4975, Cement-T-1137 /Lab/ **404** / 2019-20 **Dated:- 25 / 01 / 2020.**

**Laboratory:** Bicholim –Goa.

**Sub DivV/ (QC)/WRD/Bicholim – Goa.**

**Sub:** Improvement to canal lining by providing RCC lining on down stream of Kasarvornem Aquaduct at Ch. 12.400 km of R.B.M.C. of T.I.P. at village Kasarvornem in Pernem Taluka.

**Ref to requisition No:** SDI/WDVII/WRD/F.354/19-20/315 **Dated :** - 20 / 01 / 2020

**Qty. Received:** 1 bags each **Date of Receipt:** 22 / 01 / 2020 **Tested on:** 23 & 24/01/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS: 4031, 1968

**Sample:** 20mm, 12mm size aggrt. Sand, J.K. cement 43 grade **O.S. No. :** 1590/AF to 1593/AF **Lab. Sample No.:** 7693 TO 7696.

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

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	<b>20 mm Size Aggregate:</b>	Particle size distribution:	It is single sized aggregate of 20 mm nominal size	(Qty. - rep. )	
2.	<b>12 mm Size Aggregate:</b>	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. - rep.)	
<b>REMARK:</b> After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of <b>1:2</b> by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	<b>Coarse Sand:</b> -	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.00 % : - 5.10 % : - 2.53 : - II	(Qty. rep.)	
<b>REMARK:</b> The observed results are within the permissible limits of the coarse sand.					
4.	<b>J.K., Super Cement:</b> J.K. cement. OPC,43 Grade Ordinary Portland cement, Manuf. date: Week 51, Month 12, Year'2019. CM/L =0003401033 Qty. rep. To be used for – For PCC 1:3:6,& R.C.C.1:1.5:3.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.33 % : 31.00 % : 150 Minutes : 360 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)	
<b>REMARK:-</b> 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