

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

**Test Report No.:** WRD/Q.C./F.6-4/ Aggr-T- 9488 To 9491,Sand-T-4946,4947, Cement-T-1116 /Lab/ **319** / 2019-20     **Dated:-** 04 / 12 / 2019.

**Laboratory:** Bicholim –Goa.

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

**Sub:** - Providing RCC lining for B/2 Distributory from Ch. 0.000 Km To Ch. 2.150 Km of R.B.M.C. of T.I.P. in V.P Allorna in Pernem Taluka

**Ref to requisition No:** WRD/ SD IV/ WDVII / F10/ 2019-20/180     **Dated:** - 29 /11 / 2019

**Qty. Received:** 1 bags each     **Date of Receipt:** 29/ 11 / 2019     **Tested on:** 29 & 30/11/2019     **Ref to Specification:** CPWD 2002, Vol. I & IS: 4031, 1968

**Sample:** 20mm, 12mm size aggrt. Sand( 2Nos), Dalmia, cement 43 grade     **O.S. No. :** 1176/AF to 1182/AF     **Lab. Sample No.:** 7044 TO 7050.

**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> ( L.S.No 7044 & 7045 )	Particle size distribution:	It is single sized aggregate of 20 mm nominal size	(Qty. - rep. )	
2.	<b>12 mm Size Aggregate:</b> ( L.S.No 7046 & 7047 )	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. - rep.)	
<b>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.</b>					
3.	<b>Coarse Sand:</b> - ( L. S. No. 7048 )	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 6.00 % : - 6.25 % : - 2.40 : - III	(Qty. rep.)	
<b>REMARK: The observed results are within the permissible limits of the Coarse Sand.</b>					
3.	<b>Coarse Sand:</b> - ( L.S.No.7049 )	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.40 % : - 5.32 % : - 1.920 : - III.	(Qty. rep.)	
<b>REMARK: The observed results are within the permissible limits of the Coarse Sand.</b>					
4.	<b>Dalmia Cement:</b> Dalmia. cement. OPC,43 Grade Ordinary Portland cement, Manuf. date: Week 46, Month 11, Year'2019. CM/L = 6200022577 Qty. rep. To be used for – For PCC 1:3:6,RCC1:1.5:3.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.10 % : 31.50 % : 135 Minutes : 260 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:- The observed results are within the permissible limit for tested Ordinary Portland cement.</b>					

Copy to: 1. The Assistant Engineer, S. D. IV, 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