

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

**Test Report No.:** WRD/Q.C./F.6-4/Aggr-T-9568 & 9569, Sand-T: 4992 & 4993, Cement-T-1146/Lab/ 461 /2019-20 Dated:02/03/2020  
**Laboratory:** Bicholim **Sub Div:** V (QC)/WRD/Bicholim Goa.

**Sub:** Construction of Open type bandhara across Chichara river near bridge at Sateriwada Thana in Sattari Taluka.

**Ref to requisition No:** WRD/WDVI/SDII /F115/19-20/423 dt. 06 – 02 -2020.

**Qty. Received:** 1 bags each **Date of Receipt:** 10/02/2020 **Tested on:** 11 & 12/02/2020 **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1988

**Sample:** 20mm, 12.50 mm size aggrt, M.Sand, Coarse sand, J.K. cement,43grade **O.S. No.** 1787 To 1791 /AF **Lab. Sample No.:** 7915 To 7919

**Tested by:** Mr. Anil R. Fadte, JE.

**R E P O R T 01 O F 01**

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. – m <sup>3</sup> )	
2.	<b>12.5 mm Size Aggregate:</b>	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – m <sup>3</sup> )	
<b>REMARK:</b> After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of <u>1:2</u> by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	<b>M. Sand:</b>	i) Silt & Clay by S.A. method	: - 9.20%	( Limit of Deleterious material is 15.00% for crushed sand)	
		ii) Silt by sedimentation	: - 11.46%		
		iii) Fineness Modulus	: - 3.18		
		iv) Grading Zone	: - I		
<b>REMARK:</b> 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.	<b>Coarse Sand:</b>	i) Silt & Clay by S.A. method	: - 4.40%		
		ii) Silt by sedimentation	: - 5.81%		
		iii) Fineness Modulus	: - 2.11		
		iv) Grading Zone	: - III		
<b>REMARK:</b> The observed results are within the permissible limits of the coarse sand.					
5.	<b>Cement:</b>	i) Fineness of Cement	: 1.29%	----- (It should not be more than 10%)	
	J.K. cement, bearing IS:269	ii) Consistency of cement	: 31.00%	(It should be in the neighborhood of 35%)	
	CM/L =0003401033 Qty. rep. –bags	iii) Initial Setting Time	: 165 minutes	---- (It should not be less than 30 minutes)	
	Manuf. date: Week 05, Month 02, Year'2020.	iv) Final Setting Time	: 340 minutes	-- (It should not be more than 600 minutes)	
<b>REMARK:</b> The observed results are within the permissible limit for Ordinary Portland cement.					

Copy to: 1. The Assistant Engineer, SDII, WDVI, WRD, Bicholim – Goa.

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

3. Copy Submitted to The Executive Engineer, W.D.VI, WRD, Bicholim – Goa.

4. Q.C. Lab file

5. Bill File

**Junior Engineer**

**Assistant Engineer**

