

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

**Test Report No.:** WRD/Q.C./F.6-4/ Aggr -T- 9681, 9682 /Lab/ 149 /2020-21

**Dated:** 04/ 12 / 2020.

**Laboratory:** Bicholim

**Sand –T: 5054 , Cement: 1195,1194.**

**Sub Div: V (QC)/WRD/Bicholim Goa.**

**Sub:** Construction of Barrage and up gradation of Raw water pumping station at Ganjem on Mhadei River for Augmentation of Raw water for Opa water works Reg. Part I :Construction of Barrage , providing and laying 1000 mm dia. D.I. pipe Rising main and Break Pressure Tank at Ganjem in Sattari Taluka.

**Ref to requisition No:** SDI/WDVI/WRD/F.W. 215/2020-21/346 Dated: 25 & 28/11/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

**Sample:** Sand ,20mm, **O.S. No.** 4283,4284,4298 & 4290 & 4285/SS **Lab. Sample No.:** 9574 To 9578 **Tested by:** Mrs. S. B. Naik Shirodkar.JE.  
12.5mm size aggrt, & 2 bags cement.

**R E P O R T 01 OF 02**

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 <b>1:2</b> by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	<b>Crushed Sand:</b> (L.S.No.9578)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 14.20% : - 13.63% : - 2.69 : - II	( Limit of Deleterious material is 15.00% for crushed sand)	
<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>Cement:</b> Dalmia cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week <u>45</u> , Month <u>11</u> , Year' <u>2020</u> . CM/L = <u>6200022577</u> Qty. rep. – _____.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.26 % : 33.50% : 190 minutes : 325 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)	
To be used for – PCC& RCC <b>REMARK:</b> The observed results are within the permissible limit for Ordinary Portland cement.					

**Junior Engineer**

**Assistant Engineer**

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**Ref to requisition No:** SDI/WDVI/WRD/F.W. 215/2020-21/346 Dated: 25/11/2020.

**Qty. Received:** 1 bags of **Date of Receipt:** 25/11/2020 **Tested on:** 26, 27 & 28/11/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

**Sample:** Sand ,20mm, **O.S. No.** 4283,4284,4298 & 4290 & 4285/SS **Lab. Sample No.:** 9574 To 9578 **Tested by:** Mrs. S. B. Naik Shirodkar.JE.  
12.5mm size aggrt, & 2 bags cement.

**R E P O R T 01 OF 02**

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
5.	<b>Cement:</b> Bharati cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week --, Month 10, Year'2020. CM/L = 4578077 Qty. rep. – _____.		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.30 % ----- (It should not be more than 10%) : 33.00% (It should be in the neighborhood of 35%) : 170 minutes ---- (It should not be less than 30 minutes) : 320 minutes -- (It should not be more than 600 minutes)	
To be used for – PCC& RCC <b>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</b>					

Copy to: 1. The Assistant Engineer, SDI, 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**