

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T- 9817, 9818 /Lab/10/2021-22 **Dated:** 16/ 04/2021.

Laboratory: Bicholim

Sand –T: 5138&5139 .Cement-1247

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

Sub: Improvement and protection of Intake to Lift Irrigation Scheme at Nayanwada, Ansolem V.P. Bhironda in Sattari Taluka.

Ref to requisition No: MIN/WDVI/WRD/SDII/F.62/21-22/03 **Dated:** 06/04/2021.

Qty. Received: 1 bags each **Date of Receipt:** 06/04/2021 **Tested on:** 09,10,12 &13/04/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 5801, 5802, 5828, 5814 & 5791 /SS **Lab. Sample No.:** 1111 To 1115 **Tested by:** Mrs. Shirodkar.JE.

12.5mm size aggrt., Cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --m ³)	
2.	12.5 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – -- m ³)	
REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:1 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size.					
3.	Sand: (L.S.No.1114)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.20% : - 5.55% : - 2.54 : - II		
REMARK: The observed results are within the permissible limits of the coarse sand.					
4.	Crushed Sand: (L.S.No.1113)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 11.20% : - 13.63% : - 2.90 : - I	(Limit of Deleterious material is 15.00% for crushed sand)	
REMARK: The observed results are within the permissible limits for crushed sand (Fine Aggregate) vide table 2 of IS 383: 2016(Clause 5.2.1).					

Junior Engineer

Assistant Engineer

R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
4.	<p><u>Cement:</u> Ultratech.Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W/M-Invisible CM/L =<u>7171769</u> Qty. rep. –.</p>		i)Fineness of Cement : 1.15% ----- (It should not be more than 10%) ii) Consistency of cement : 33.00% (It should be in the neighborhood of 35%) iii) Initial Setting Time : 190 minutes ---- (It should not be less than 30 minutes) iv) Final Setting Time : 320 minutes -- (It should not be more than 600 minutes)		
<p>To be used for –1:2:4& 1:1.5:3mixconcrete <u>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</u></p>					

- Copy to: 1. The Assistant Engineer, SDII, WDV, WRD, Valpoi-Sattari – 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