

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

Test Report No.: WRD/Q.C./ F.6-4 /Aggr-T- 9963,9964/Lab/262/2021-22 **Dated:** 15/01/2022.

Laboratory: Bicholim

Sand –T: 5231, 5232 **Cement-T:** 1318, 1319

Sub Div: V(QC)/W.D.VIII/Bicholim Goa.

Sub:- Construction of Open Type Bandhara across Bicholim river at Gaonkarwada in Bicholim.

Ref to requisition No.: -F.220/WRD/WDVI/SDI/406/21-22 **Dated:-** 05/01/2022.

Qty. Received: 1 bags each **Date of Receipt:** 05/01/2022 **Tested on:-** 07,10,11 & 12/01/2022 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 7320,7321,7326,7328,7327 & 7294/S.S. **Lab. Sample No.:** 2641 To 2646 **Tested by:** Mrs. S.B. Naik Shirodkar J.E.

12.5mm size aggrt., Sand, Cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
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.	Coarse Sand: (L.S.No.2643)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.60% : - 5.88% : - 3.21% : - I		
REMARK: The observed results are within the permissible limits of the coarse sand.					
4.	Crushed Sand: (L.S.No.2644)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 14.80% : - 13.33% : - 2.338 : - II	(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

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Sample: Sand, 20mm, **O.S. No.** 7320,7321,7326,7328,7327 & 7294/S.S. **Lab. Sample No.:** 2641 To 2646 **Tested by:** Mrs. S.B. Naik Shirodkar J.E.
12.5mm size aggrt., Sand, Cement

R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
5.	Cement: Jyoti Strong Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W -51, M -12, Y- 2021 CM/L =6031546 Qty. rep. – ____--. To be used for –		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.27% ----- (It should not be more than 10%) : 32.50% (It should be in the neighborhood of 35%) : 155 minutes ---- (It should not be less than 30 minutes) : 290 minutes -- (It should not be more than 600 minutes)	
			REMARK: The observed results are within the permissible limit for Ordinary Portland cement.		
6.	Cement: Ratna Gold Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W - -, M- invisible, Y- - CM/L = 3300350 Qty. rep. – ____--. To be used for –		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.15% ----- (It should not be more than 10%) : 31.50% (It should be in the neighborhood of 35%) : 165 minutes ---- (It should not be less than 30 minutes) : 315 minutes -- (It should not be more than 600 minutes)	
			REMARK: The observed results are within the permissible limit for Ordinary Portland cement.		

Copy to: 1. The Assistant Engineer,SDI,WDVI,WRD, Bicholim-Goa.

2. Copy Submitted to The Superintending Engineer, CPO, WRD,Sinchai Bhavan Porvorim-Goa for kind Information

3. Copy Submitted to The Executive Engineer, WDVI, WRD,Bicholim – Goa

4. Q.C. Lab file 5. Bill File.

Junior Engineer

Assistant Engineer