GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./ F.6-4 /Aggr-T-9919,9920 /Lab/216/2021-22 Dated: 29/ 11/2021. **Laboratory:** Bicholim
Sand –T:5201, 5202 Cement-T:1297 **Sub Div: V(QC)/W.D.VIII/Bicholim Goa.**

Sub: Construction of Protection wall for In Survey No 129/1 at Paltadwada, Maulinguem in V.P. Ona – Maulinguem – Kudchirem in Bicholim Taluka of Bicholim Taluka.

Ref to requisition No:-F.4/WRD/WDVI/SDI/334/20-21 Dated: 19/11/2021.

Qty. Received: 1 bags each **Date of Receipt**: 19/11/2021 **Tested on**:20,21,22 & 23/11/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand,20mm, **O.S. No.**7097,7098,7102,7110 & 7095/S.S. **Lab. Sample No**.: 2390 To 2394 **Tested by**: Mrs. S.B. Naik Shirodkar J.E.
12.5mm size aggrt., Sand, Cement**.**

R E P O RT 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.2392)	i) Silt & Clay by S.A. method	: - 4.40%	
		ii) Silt by sedimentation	: - 5.12%	
		iii) Fineness Modulus	: - 3.91%	
		iv) Grading Zone	: - I	

REMARK: The observed results are within the permissible limits of the coarse sand.

4.	**Crushed Sand:** (L.S.No.2393)	i) Silt & Clay by S.A. method	: - 13.20%**(Limit of Deleterious material is 15.00% for crushed sand)**	
		ii) Silt by sedimentation	: - 13.95%	
		iii) Fineness Modulus	: - 2.938	
		iv) Grading Zone	: - II	

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 Engneer **Assistant Engineer**

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./ F.6-4 /Aggr-T-9919,9920 /Lab/216/2021-22 Dated: 29/ 11/2021. **Laboratory:** Bicholim
Sand –T:5201, 5202 Cement-T:1297 **Sub Div: V(QC)/W.D.VIII/Bicholim Goa.**

Sub: Construction of Protection wall for In Survey No 129/1 at Paltadwada, Maulinguem in V.P. Ona – Maulinguem – Kudchirem in Bicholim Taluka of Bicholim Taluka.

Ref to requisition No:-F.4/WRD/WDVI/SDI/334/20-21 Dated: 19/11/2021.

Qty. Received: 1 bags each **Date of Receipt**: 19/11/2021 **Tested on**:20,21,22 & 23/11/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand,20mm, **O.S. No.**7097,7098,7102,7110 & 7095/S.S. **Lab. Sample No**.: 2390 To 2394 **Tested by**: Mrs. S.B. Naik Shirodkar J.E.

12.5mm size aggrt., Sand, Cement**.**

R E P O RT 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
5.	**Cement:** J.K. Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W- 43 M- 10 . Y-2021 CM/L =0003401033 Qty. rep. –____--.	i)Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.13% : 31.50 % : 165 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 – **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**