

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T-9546, 9547 /Lab/ **417** /2019-20

Dated: 01/02/2020

Laboratory: Bicholim

Sand –T: 4979, Cement-T- 1138, Lat-T-0435.

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

Sub: Construction of storm water drain from main road to Vaigunim in Sy. No.311/1 in ward No.VI of Bhavkai, Mayem in Bicholim Taluka.

Ref to requisition No: WRD/WDVI/SDI /FW220/19-20/629 dt. 17 – 01 -2020.

Qty. Received: 1 bags each **Date of Receipt:** 27/01/2020 **Tested on:** 28 & 29/01/2020 **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1988

Sample: 20mm, 12.50mm size aggrt, **O.S. No.** 1629 To 1633 /AF **Lab. Sample No.:** 7735 To 7739 **Tested by:** Mr. Anil R. Fadte, JE.
Coarse sand, J.K. cement, laterite stone.

REPORT 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. – 45 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. – 45 m ³)	
	REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.				
3.	Coarse Sand:	i) Silt & Clay by S.A. method	: - 4.40%		
		ii) Silt by sedimentation	: - 5.81%		
		iii) Fineness Modulus	: - 2.40		
		iv) Grading Zone	: - II		
	REMARK: The observed results are within the permissible limits of the coarse sand.				
4.	Cement:	i) Fineness of Cement	: 1.16%	----- (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%)	
	Ordinary Portland cement,	iii) Initial Setting Time	: 160 minutes	---- (It should not be less than 30 minutes)	
	Manuf. date: Week 52, Month 12, Year'2019.	iv) Final Setting Time	: 390 minutes	-- (It should not be more than 600 minutes)	
	CM/L =0003401033				
	Qty. rep. –500 bags.				
	To be used for – PCC and laterite stone masonry.				

REMARK: The observed results are within the permissible limit for Ordinary Portland cement.

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
5.	Laterite stone	A) Compressive strength test:	i) 74.26 Kg/cm² ii) 40.83 Kg/cm² iii) <u>38.51Kg/cm²</u> Avg. 51.20 Kg/cm²	35.00kg/cm²	
			Remark: - The average Compressive strength is 46.29% more than the specified value of 35 Kg/cm².		
		B) Water Absorption Test.	i) 11.80% ii) 11.00% iii) <u>12.40%</u> Avg. 11.73%	12.00%	
			Remark: The average water absorption is 11.73%, which is less than the maximum permissible limit of 12% .		

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