

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

Test Report No.: WRD/Q.C./F.101/ Aggr-T- 197, 198 / Lab /178/ 2022-23 **Dated:** 27/10/2022.

Laboratory: Bicholim

Sand –T: 5310, **Cement- T:**-1382, **Lat:T:** 0455

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

Sub:- Construction of septic tank to B-type quarter including fixing of pavers surrounding of A-type quarter of TIP complex Karaswada Bardez Goa.

Ref to requisition No.:-SD III/WDVIII/WRD/WF.101/2022-23/163 **Dated:** 11/10/2022.

Qty. Received: 1 bags each **Date of Receipt:** 20/10/2022 **Tested on:** 21,22,24,25 & 26/10/2022 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample:Sand,20mm, **O.S. N:-** 9394,9395,9397,9393 & 9433/SS. **Lab. Sample No.:** 5317 To 5321 **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	Remarks
1.	<u>20.00 mm Size Aggregate:</u>	Particle size distribution:	It is single sized aggregate of 20.00 mm nominal size.	(Qty. rep. – --m ³)	
2.	<u>12.5 mm Size Aggregate:</u>	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep.– -- m ³)	
		<u>REMARK:</u> 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.	<u>Course Sand:</u> (L.S.No.5319)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.80% : - 5.55% : - 2.38% : - II		
	To be used for-----.	<u>REMARK:</u> The observed results are within the permissible limits of the coarse sand.			
4.	<u>Cement:</u> JK. Cement 43 Brand, bearing IS:269 Ordinary Portland cement, Manuf. date: W- 41, M- 10, Year-2022 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% : - 175 minutes : - 310 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 :- 1:2:4 Mix	<u>REMARK:</u> The observed results are within the permissible limit for Ordinary Portland cement.			

Junior Engineer

Assistant Engineer

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R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
5.	<u>Laterite stone</u>	A) Compressive strength test: -	i) 40.77 Kg/cm ² ii) 45.30 Kg/cm ² iii) 36.24 Kg/cm ² Avg. 40.77 Kg/cm²	35.00kg/cm²	
					Remark: - The average Compressive strength achieved is 16.48 % more than the specified value of 35 Kg/cm².
	<u>Water Absorption Test.</u>		i) 9.89 % ii) 11.11% iii) 11.11% Avg. 10.70 %	12.00%	
					Remark: The average water absorption is 10.70 %, which is less than the maximum permissible limit of 12% .

Copy to: 1. The Assistant Engineer, SD III, WD VIII, W.R.D Karaswada Bardez-Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD,Sinchai Bhavan Porvorim-Goa for kind Information
3. Copy Submitted to The Executive Engineer, W.D.VIII, W.R.D., Karaswada Bardez – Goa
4. Q.C. Lab file 5. Bill File.

Junior Engineer

Assistant Engineer