## GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./F.6-4/Aggr-T- 9893, 9894 /Lab/ 189 /2021-22 Dated: 22/10/2021. Laboratory: Bicholim

Sand -T: 5184. Cement-1284, Laterite T:446

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

Sub:- Improvement to the existing CADA building at T.I.P complex Karaswada Bardez-Goa.

Ref to requisition No:-SDIII/WDVIII/WRD/WF.68/2021-22/167 Dated: 27/09/2021.

**Qty. Received:** 1 bags each **Date of Receipt**: 07/10/2021 **Tested on**: 12,13 & 14/10/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

**Sample:**Sand,20mm, **O.S. N:-**7011,7012,7016,7013,7017/SS **Lab. Sample No.**: 2266 To 2270 **Tested by**: Mrs. Shirodkar.JE.

12.5mm size aggrt., 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 a	ggregate of 20 mm nominal size. (Qty. rep.	m <sup>3</sup> )					
2.	12.5 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size. (Qty. rep. – m <sup>3</sup> )							
	<u>REMARK</u> : After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of <u>1:2</u> by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.									
3.	Sand:	i) Silt & Clay by S.A. meth	od :- 5.60%							
	(L.S.No.2268)	ii) Silt by sedimentation								
	,	iii) Fineness Modulus	: - 2.96							
		iv) Grading Zone	: - II							
	To be used for <b>REMARK:</b> The observed results are within the permissible limits of the coarse sand.									
4.	Cement:	i) Fine	ness of Cement	: 1.25% (It should not be more	than 10%)					
	JK.Cement, bearing IS:269 Ordinary Portland cement, iii) C		sistency of cement	: 31.00% (It should be in the neighborhood	of 35%)					
			ial Setting Time	: 190 minutes (It should not be less than	n 30 minutes)					
			1 Setting Time	: 320 minutes (It should not be more than	600 minutes)					
	CM/L = 0003401033	,	J	`	,					
	Qty. rep. –.									
	To be used for -1:1.5:3 mix concrete. <b>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</b>									

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## REPORT 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks		
5.	Laterite stone	A) Compressive strength test: -	i) 52.10 Kg/cm <sup>2</sup>	$35.00 \text{kg/cm}^2$			
		12, compressive strength test	i) 52.10 Kg/cm <sup>2</sup> ii) 45.30 Kg/cm <sup>2</sup>				
			iii) 61.16 Kg/cm <sup>2</sup>				
	Avg. $\frac{}{}$ 52.85 $$ Kg/cm <sup>2</sup>						
	Remark: - The average Compressive strength achieved is 51.00 % More than the specified value of 35 Kg/cm <sup>2</sup> .						
		P) Water Absorption Test	;) 6702 %				
		B) Water Absorption Test.	i) 6.792 %				
			ii) 6.660 %				
<u>iii) 8.00 %</u>							
			Avg. <b>7.15 %</b>	12.00 %			
Remark: The average water absorption is <b>7.15</b> %, less than the maximum permissible limit of <b>12</b> %.							

Copy to: 1. The Assistant Engineer, SDIII, WDVIII, WRD, Karaswada-Bardez – Goa.

- 2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim Goa for kind information.
- 3. Copy Submitted to The Executive Engineer, W.D. VIII, WRD, Karaswada-Bardez Goa
- 4. Q.C. Lab file 5. Bill File.

**Junior Engineer** 

**Assistant Engineer**