GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./F.6-4/Aggr-T-9428 To 9435 /Lab/ 282 /2019-20 **Dated: 15/ 10/2019.** **Laboratory:** Bicholim
Sand –T: 4913 To 4916 , Cement: 1102. **Sub Div: V (QC)/WRD/Bicholim Goa.**

Sub: Providing RCC lining for B/2 Distributory from Ch. 0.00 km to ch. 2.15 kms of RBMC of TIP in V.P. Allorna in Pernem Taluka..
Ref to requisition No: SDIV/WDVII/WRD/F. 10/2019-20/109 Dated: 04/10/2019.
Qty. Received: 4 bags each **Date of Receipt**: 04/10/2019 **Tested on**: 05,09 &10/10/2019 **Ref to Specification:** CPWD 2002, Vol. I&IS:4031-4-1988
Sample: Sand,20mm, **O.S. No.** 1118 To 1130 /AF **Lab. Sample No**.: 6802 To 6814 **Tested by**: Mr. Anil R. Fadte, JE.
12.5mm size aggrt, 1 beg cement.

R E P O RT 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. – 200 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. – 200 m^3)	
	(L.S.No. 6802 & 6806)	**REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size**.			
3.	**20 mm Size Aggregate:**	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – 200 m^3)	
4.	**12.5 mm Size Aggregate**:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – 200 m^3)	
	(L.S.No. 6803 & 6807)	**REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size**.			
5.	**20 mm Size Aggregate:**	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – 200 m^3)	
6.	**12.5 mm Size Aggregate**:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – 200 m^3)	
	(L.S.No. 6804 & 6808)	**REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size**.			
7.	**20 mm Size Aggregate:**	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – 200 m^3)	
8.	**12.5 mm Size Aggregate**:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – 200 m^3)	
	(L.S.No. 6805 & 6809)	**REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size**			

Junior Engineer **Assistant Engineer**

R E P O RT 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
9.	**Coarse Sand:** (L.S.No.6810)	i) Silt & Clay by S.A. method	: - 4.80%		
		ii) Silt by sedimentation	: - 6.82%		
		iii) Fineness Modulus	: - 2.73		
		iv) Grading Zone	: - II		
10.	**Coarse Sand:** (L.S.No.6811)	i) Silt & Clay by S.A. method	: - 4.20%		
		ii) Silt by sedimentation	: - 4.76%		
		iii) Fineness Modulus	: - 2.76		
		iv) Grading Zone	: - II		
11.	**Coarse Sand:** (L.S.No.6812)	i) Silt & Clay by S.A. method	: - 5.40%		
		ii) Silt by sedimentation	: - 5.81%		
		iii) Fineness Modulus	: - 2.42		
		iv) Grading Zone	: - III		
12.	**Coarse Sand:** (L.S.No.6813)	i) Silt & Clay by S.A. method	: - 3.40%		
		ii) Silt by sedimentation	: - 4.55%		
		iii) Fineness Modulus	: - 2.51		
		iv) Grading Zone	: - III		

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

13. Cement:

J.K cement, bearing IS:269
Ordinary Portland cement,
Manuf. date: Week 37, Month 09, Year'2019.
CM/L =0003401033
Qty. rep. –.
To be used for – RCC 1:1.5:3.

i) Fineness of Cement : 1.18% ---------- (It should not be more than 10%)
ii) Consistency of cement : 31.00% (It should be in the neighborhood of 35%)
iii) Initial Setting Time : 150 minutes ---- (It should not be less than 30 minutes)
iv) Final Setting Time : 280 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, SDIV, WDVII,WRD, Dhargal, Pernem – Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.
3. Copy Submitted to The Executive Engineer, W.D.VII, WRD, Dhargal,Pernem – Goa.
4. Q.C. Lab file 5. Bill File.

Junior Engineer **Assistant Engineer**