

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T- 9843,9844 /Lab/46/2021-22 **Dated:** 03/ 05/2021. **Laboratory:** Bicholim
Sand –T: 5153,5154. Cement-1259 **Sub Div:** V (QC)/WRD/Bicholim Goa.

Sub: Construction of Pilgao-Narve Distributory of LBMC of TIP from ch.8670m to ch.10725m at Narve village in Bicholim Taluka.

Ref to requisition No: SDII/WDVIII/WRD/F.160/2020-21/05 **Dated:** 17/04/2021.

Qty. Received: 1 bags each **Date of Receipt:** 23/04/2021 **Tested on:** 29 & 30/04/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, **O.S. No.:** 6034,6035,6036,6051 & 6052 /SS **Lab. Sample No.:** 1322 To 1326 **Tested by:** Mrs. Shirodkar.JE.

12.5mm size aggrt., Cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	Sand: (L.S.No.1322)		i) Silt & Clay by S.A. method : - 4.60% ii) Silt by sedimentation : - 4.16% iii) Fineness Modulus : - 2.58 iv) Grading Zone : - II		
	To be used for –	REMARK: The observed results are within the permissible limits of the coarse sand.			
2.	Crushed Sand: (L.S.No.1323)		i) Silt & Clay by S.A. method : - 12.20% (Limit of Deleterious material is 15.00% for crushed sand) ii) Silt by sedimentation : - 13.33% iii) Fineness Modulus : - 2.68 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).			
3.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --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. – -- 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.

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.	Cement: Dalmia.Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W/M-Invisible Year-2021 CM/L = <u>6200022577</u> Qty. rep. – To be used for – <u>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</u>		i)Fineness of Cement : 1.23% ii) Consistency of cement : 31.00% iii) Initial Setting Time : 165 minutes iv) Final Setting Time : 315 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)	

- Copy to: 1. The Assistant Engineer, SDII, WDVIII,WRD, Tivim – 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