

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

Test Report No.: WRD/Q.C. / F.14 /Aggr-T- 185,186/Lab/ 171/2022-23 **Dated:** 13/10/2022. **Laboratory:** Bicholim-Goa

Sand –T: 5303, 5304. **Cement-T:** 1376

Sub Div: V (QC)/W.D.VIII/Bicholim Goa.

Sub: “Constructions of Tail Minor,DO’s,WC’s and FC’ sof B/4 Distributary and DWC 19L off taking at Ch 18.005 km of R B C of TIP at Village Dhargal In Pernem Taluka.”

Ref to requisition No.: SDVI/WDVII/WRD/F.14/2022-23/73 **Dated:** 28/09/2022.

Qty. Received: 1 bags each **Date of Receipt:** 10/10/2022 **Tested on:** 10,11 & 12/10/2022 **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 9365, 9366,9367,9370,9359. **Lab. Sample No.:** 5283 To 5287 **Tested by:** Mrs. S.B. Naik Shirodkar J.E.
12.50mm size Aggr, Sand, and Cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20.00 mm nominal size.	(Qty. rep. – 45.00 m ³)	
2.	12.50 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.50 mm nominal size.	(Qty. rep. – 45.00 m ³)	
REMARK: After blending 20 mm aggregate with 12.50 mm aggregates at the ratio of 1:1 by weight; it is Satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	Coarse Sand: (L.S.No.5285)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.80 % : - 5.80 % : - 2.34 % : - III		
REMARK: The observed results are within the permissible limits of the coarse sand.					
4.	C- Sand (L.S.No.5286)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 11.10 % : - 13.88 % : - 2.64 % : - II	(Limit of Deleterious material is 15.00% for crushed sand)	

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).

Junior Engineer

Assistant Engineer

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12.50mm size Aggr, Sand, and Cement

R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remark	
5.	Cement: JK Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W-40, M-10, Y- 2022 CM/L =_0003401033 Qty. rep. – <u>45.00 m³</u> To be used for PCC 1:2:4 –		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.25 % ----- (It should not be more than 10%) : 32.00 % (It should be in the neighborhood of 35%) : 165 minutes ---- (It should not be less than 30 minutes) : 320 minutes -- (It should not be more than 600 minutes)		<u>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</u>

- Copy to: 1. The Assistant Engineer, SDIV, WDVII,WRD, Dhargal-Pernem-Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD,Sinchai Bhavan Porvorim-Goa for kind Information
3. Copy Submitted to The Executive Engineer, WDVII, WRD, Dhargal-Pernem-Goa
4. Q.C. Lab file 5. Bill File.

Junior Engineer

Assistant Engineer