

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

Test Report No.: WRD/Q.C. / F.6-4 /Aggr-T- 251,252/Lab/271/2022-23 **Dated:** 10/02/2023. **Laboratory:** Bicholim-Goa
Sand –T: 5345. Cement-T: 1409 Laterite Stone-T:- 0458. **Sub Div:** V (QC)/W.D.VIII/Bicholim Goa.

Sub: Improvement to the existing Dhond tali at Sirigao village of Bicholim Taluka.

Ref to requisition No:- F.36/SDIII/WDVI/WRD/2022-23/67 **Dated:** 24/11/2022.

Qty. Received: 1 bags each **Date of Receipt:** 31/01/2023 **Tested on:** 01,02,03,08,09 & 10/02/2023 **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 62,63,88,49,157/SS. **Lab. Sample No :** 6129 To 6133 **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. – 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. – 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.6131) | i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone | : - 5.20 % : - 4.54 % : - 2.42 % : - II | | |
| REMARK: The observed results are within the permissible limits of the Coarse sand. | | | | | |
| 4. | Cement: JK OPC 43 Cement, bearing IS:269 Ordinary Portland cement, Manuf. date:W-02, M-01, Y- 2023 CM/L =_0003401033 Qty. rep. – To be used for– | i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time | : 1.16 % : 31.00 % : 140 minutes : 270 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) | |
| REMARK: 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 | Remark |
|---------|-----------------------|-------------------------------|---|------------------------------|---|
| 5. | <u>Laterite stone</u> | A) Compressive strength test: | - i) 45.30 Kg /cm ² 35.00kg/cm² ii) 43.03 Kg /cm ² iii) 38.50 Kg /cm ² Avg. 42.27 Kg/cm ² | | Remark: - The average Compressive strength achieved is 20.77 %More than the specified value of 35 Kg/cm² . |
| | | B) Water Absorption Test. | i) 8.8 % ii) 9.00 % iii) 10.00 % Avg. 9.26 % | | Remark: The average water absorption is 9.26 % ,less than the maximum permissible limit of 12% . |

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

Junior Engineer

Assistant Engineer