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

**Test Report No.: WRD/Q.C. / F.6-4 /Aggr-T- 183,184/Lab/ 170 /2022-23** **Dated: 13/10/2022.** **Laboratory:** Bicholim-Goa
**Sand –T: 5302, Cement-T: 1375** **Sub Div: V (QC)/W.D.VIII/Bicholim Goa.**
**Sub: Construction of Piligao –Narva Distributary of LBMC of T.I.P. from Ch. 12.330 km to tail end at village Narva Mayem in Bicholim Taluka.**
**Ref to requisition No**:-WRD//WDVIII/SDIV/WF.246/2022-23/108. Dated: 28/09/2022.
**Qty. Received:** 1 bags each **Date of Receipt**: 06/10/2022 **Tested on**: 07,10 & 11/10/2022. **Ref to Specification:** CPWD 2009, Vol. I&IS: 4031-4-1968
**Sample:** Sand, 20mm, **O.S. No.** 9355, 9356,9360,9354. **Lab. Sample No**.: 5279 To 5282 **Tested by**: Mrs. S.B. Naik Shirodkar J.E.
10mm size Aggr, Sand, and Cement

**R E P O RT 01 OF 01**

| 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 mm nominal size. | (Qty. rep. – --$m^3$) | |
| 2. | **10 mm Size Aggregate**: | Particle size distribution: | It is not single sized aggregate of 10 mm nominal size. | (Qty. rep. – -- $m^3$) | |

**REMARK: After blending 20 mm aggregate with 10 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.5281) | i) Silt & Clay by S.A. method | : - 5.00 % |
| | | ii) Silt by sedimentation | : - 5.71 % |
| | | iii) Fineness Modulus | : - 2.158 % |
| | | iv) Grading Zone | : - III |

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

| | | | | |
|---|---|---|---|---|
| 4. | **Cement:** | i) Fineness of Cement | : 1.35 % | ---------- (It should not be more than 10%) |
| | JK Cement, bearing IS:269 | ii) Consistency of cement | : 32.5 % | (It should be in the neighborhood of 35%) |
| | Ordinary Portland cement, | iii) Initial Setting Time | : 155 minutes | ---- (It should not be less than 30 minutes) |
| | Manuf. date:W-40, M-10, Y-2022 | iv) Final Setting Time | : 315 minutes | -- (It should not be more than 600 minutes) |
| | CM/L =_0003401033 | | | |
| | Qty. rep. –____--. | | | |

To be used for 1:1:5:3 & 1:2:4 Grade Concrete – **REMARK: The observed results are within the permissible limit for Ordinary Portland cement.**

Copy to: 1. The Assistant Engineer, SD IV, WD VIII, W.R.D. Dodamarg -Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD,Sinchai Bhavan Porvorim-Goa for kind Information
3. Copy Submitted to The Executive Engineer, W.D.VIII, W.R.D., Karaswada Bardez – Goa
4. Q.C. Lab file 5. Bill File.

**Junior Engineer** **Assistant Engineer**