GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./F.6-4/ Sand -T: 5053 / Lab / 2020-21 / 152 Dated: 07/ 12 / 2020. **Laboratory:** Bicholim - Goa

Aggr-T- 9679,9680, Cement – T: 1193

Sub Div: V (OC)/WRD/Bicholim - Goa

Sub:- Construction of 10 cm thick PCC lining for canal from ch. 15.00 km to ch. 18.00 km of LBMC of TIP in Tivim and Sircaim village of Bardez Taluka.

Ref to requisition No: 1.SD II / WDVIII /WRD / F. 154 /2020-21/ 116 Dated: - 30 / 10 / 2020.

2.SD II / WDVIII /WRD / F. 154 /2020-21/ 118 Dated: - 30 / 10 / 2020.

Oty. Received: 1 bags each **Date of Receipt-**: 01/12/2020 **Tested on**: 03/12/2020 To 05/12/2020 **Ref to Specification:** CPWD 2009, Vol. I., IS: 4031-4-1968.

Sample: - Sand, 20mm, **O.S. No.** : 4327,4328,4334 & 4329 /SS Lab. Sample No.: 9655 To 9658 Tested by: Mrs. S. B. Naik Shirodkar.JE.

12.50mm size aggrt & Cement

Sr. No. Description of sample	Tested for		Results	Max. /Min. value permissible	Remarks
1. Coarse Sand:	i) Silt & Clay by S.A. method	: -	4.80 %		
(L.S.No.9655)	ii) Silt by sedimentation	: -	5.00 %		
	iii) Fineness Modulus	: -	2. 448		
	iv) Grading Zone	: -	II		
REMARK: The observed results are within the permissible limits of the coarse sand.					

Particle size distribution: It is single sized aggregate of 20 mm nominal size. $(Qty. rep. - ----m^3)$ 2. 20 mm Size Aggregate: It is not single sized aggregate of 12.50 mm nominal size. (Qty. rep. - ----- m³) 3. 12.50 mm Size Aggregate: Particle size distribution:

REMARK:- After blending 20 mm aggregate with 12.50 mm aggregates at the ratio of 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.

4. Cement:-

Dalmia ,43 Grade cement Ordinary Portland cement, Manuf. date: Week 44,

i) Fineness of Cement

: - 1.28 % ----- (It should not be more than 10%)

ii) Consistency of cement

: - 32.50 % (It should be in the neighborhood of 35%)

iii) Initial Setting Time iv) Final Setting Time

: - 165 minutes ---- (It should not be less than 30 minutes) : - 290 minutes -- (It should not be more than 600 minutes)

Month 11 Year'2020.

To be used for - ----

REMARK: The observed results are within the permissible limit for Ordinary Portland cement.

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