GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

<u>Test Report No.</u>: WRD/Q.C./F.6-4/Aggr-T- 9961, 9962 /Lab/260/2021-22 Dated: 10/ 01/2022. <u>Laboratory</u>: Bicholim

Sand –T:- 5229, 5230, Cement-T:-1317, Laterite Stone-T:- 0450

Sub Div: V (QC)/WRD/Bicholim Goa.

<u>Sub:</u>- Improvement and Development of Veling Talli at Talewada in Survey No.22/0, of Veling Village in Priol Constituency.

Ref to requisition No:-WRD/WDXI/SDIV/W.F.464/419/2021-22 Dated: - 28/12/2021.

Oty. Received: 1 bags each **Date of Receipt**:- 01/01/2022 **Tested on**:- 06,07 & 08/01/2022 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, O.S. N:- 7292, 7293, 7318, 7286, 7301 & 7319/SS Lab. Sample No.: - 2594 To 2599 Tested by: - Mrs. S.B. Naik Shirodkar J.E.

12.5mm size aggrt., Cement, Laterite stone & M.Sand

REPORT 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks				
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized	aggregate of 20 mm nominal size. (Qty.	$repm^3$				
2.	12.5 mm Size Aggregate:	Particle size distribution:	It is not single si	zed aggregate of 12.5 mm nominal size. (Qty.	$rep m^3$				
		REMARK : After blend	ing 20 mm aggreg	ate with 12.5 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.	Sand:	i) Silt & Clay by S.A. meth	od : - 5.60%						
	(L.S.No.2596)	ii) Silt by sedimentation	: - 5.40%						
		iii) Fineness Modulus	: - 2.65						
		iv) Grading Zone	: - II						
To be used for REMARK: The observed results are within the permissible limits of the coarse sand.									
4.	Cement:	i) Finenci	ess of Cement	: 1.26% (It should not be mo	ore than 10%)				
	JKCement, bearing IS:2	269 ii) Consi	stency of cement	: 32.50% (It should be in the neighborho	ood of 35%)				
	Ordinary Portland cemen	•	l Setting Time	: 165 minutes (It should not be less t	•				
	•		Setting Time	: 315 minutes (It should not be more t	,				
	CM/L =0003401033	_,	200000	(20 523 000 100 00 12010 0					
	Qty. rep. –.								
		2.4 _ REMARK. The obse	rved recults are w	ithin the permissible limit for Ordinary Po	artland coment				

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12.5mm size aggrt., Cement, Laterite stone & M.Sand

REPORT 02 OF 02

5. Laterite stone A) Compressive strength test: - i) 43.03 Kg/cm² 35.00kg/cm²

ii) 38.50 Kg/cm^2

iii 49.83 Kg/cm²

Avg. **43.786** Kg/cm²

Remark: - The average Compressive strength achieved is **25.10**% **More** than the specified value of **35.00** Kg/cm².

B) Water Absorption Test.

i) 9.00 %

ii) 10.00 %

iii 10.20 %

Avg 9.73 %

12.00 %

Remark: The average water absorption is 9.73 %,less than the permissible limit of 12.00%

6. Crushed Sand: i) Silt & Clay by S.A. method : - 14.20% (Limit of Deleterious material is 15.00% for crushed sand)

(L.S.No.2599) ii) Silt by sedimentation : - 14.63%

iii) Fineness Modulus :- 3.08

iv) Grading Zone :- I

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).

Copy to: 1. The Assistant Engineer, SDIV, WDXI, WRD, Ponda-Goa.

- 2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim Goa for kind information.
- 3. Copy Submitted to The Executive Engineer, W.D. XI, WRD, Ravonfond, Navelim Salcete Goa
- 4. Q.C. Lab file 5. Bill File.