

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

Test Report No.: WRD/Q.C./F.6-4/Aggr-T- 9789, 9790 /Lab/284 /2020-21 Dated: 06 / 03/2021.

Laboratory: Bicholim

Sand –T: 5116&5117 .Cement-1230

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

Sub: Renovation of Bandhara at Khadki V.P.Khotodem in Sattari Taluka.

Ref to requisition No: MIN/WDVI/WRD/SDII/F.62/20-21/517 Dated: 25/02/2021.

Qty. Received: 1 bags each **Date of Receipt:** 27/02/2021 **Tested on:** 03,04 & 05/03/2021 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

Sample: Sand, 20mm, **O.S. No.** 5249, 5250, 5267, 5268 & 5229 /SS **Lab. Sample No.:** 544 To 548 **Tested by:** Mrs. S. B. Naik Shirodkar.JE.

12.5mm size aggrt., Cement

R E P O R T 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. rep. – --m ³)	
2.	12.5 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – -- m ³)	
REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying therequired criteria for graded aggregate of 20 mm nominal size.					
3.	Sand: (L.S.No.547)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.20% : - 5.68% : - 2.45 : - II		
To be used for – REMARK: The observed results are within the permissible limits of the coarse sand.					
4.	Crushed Sand: (L.S.No.546)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 13.60% : - 12.76% : - 2.78 : - 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

R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
4.	<u>Cement:</u> Ultratech.Cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week <u>07</u> , Month <u>02</u> , Year' <u>2021</u> CM/L = <u>7171769</u> Qty. rep. –.		i)Fineness of Cement : 1.24% ii) Consistency of cement : 31.50% iii) Initial Setting Time : 145 minutes iv) Final Setting Time : 285 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)	
To be used for – <u>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</u>					

- Copy to: 1. The Assistant Engineer, SDII, WDV, WRD, Valpoi-Sattari – Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.
3. Copy Submitted to The Executive Engineer, W.D. VI, WRD, Bicholim – Goa
4. Q.C. Lab file 5. Bill File.

Junior Engineer

Assistant Engineer