

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

**Test Report No.:** WRD/Q.C./F.6-4/Aggr-T- 9931,9932/Lab/227/2021-22    **Dated:** 08/12 /2021.    **Laboratory:** Bicholim  
**Sand –T:5211    Cement-T: 1303**    **Sub Div: V (QC)/WRD/Bicholim Goa.**

**Sub:-Improvement to drain from Dept. of Archaeology to Mary Immaculate School along Rua de Ourem, Mala Panaji Goa.**

**Ref to requisition No:-** SDIV/WDI/WRD/F.38/2021-22/516    **Dated:** 08/11/2021.

**Qty. Received:** 1 bags each    **Date of Receipt:** 30/11/2021    **Tested on:** 02,04 & 05/12/2021    **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

**Sample:**Sand,20mm, **O.S. N:-** 7153,7154,7165 & 7160/SS    **Lab. Sample No.:** 2455 To 2458    **Tested by:** Mrs. Shirodkar.JE.  
12.5mm size aggrt., Sand, Cement

**R E P O R T 01 OF 01**

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	<b>20 mm Size Aggregate:</b>	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --m <sup>3</sup> )	
2.	<b>12.5 mm Size Aggregate:</b>	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – -- m <sup>3</sup> )	
<b>REMARK: After blending 20 mm aggregate 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.</b>					
3.	<b>Coarse Sand:</b> (L.S.No.2457)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 5.00% : - 5.20% : - 2.18 : - III		
To be used for----. <b>REMARK: The observed results are within the permissible limits of the coarse sand.</b>					
4.	<b>Cement:</b> <b>Dalmia</b> Cement, bearing IS:269 Ordinary Portland cement, Manuf. date: W- - ,M- - , Year-2021 CM/L =0006936289 Qty. rep. –.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.05% : 32.50% : 170 minutes : 315 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 –. <b>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</b>					

Copy to: 1. The Assistant Engineer, SDIV, WDI,WRD,Porvorim – Goa.  
2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.  
3. Copy Submitted to The Executive Engineer, W.D. I, WRD, Porvorim – Goa  
4. Q.C. Lab file    5. Bill File.

**Junior Engineer**

**Assistant Engineer**