

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

**Test Report No.:** WRD/Q.C./F.6-4/Aggr-T-9653 TO 9656 /Lab/ 123 /2020-21

**Dated:** 24/ 10/2020.

**Laboratory:** Bicholim

**Sand –T: 5039 & 5040, Cement:T: 1181**

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

**Sub:** Improvement to the RBMC of TIP by Providing 100 mm thick RCC lining from ch 0.00 kms to 6.020 km excluding Hassapur aquaduct and Kalna aquaduct between Ch 4.165 km to 4.227 and 4.772 to 5.117 km at village Ankane-Hassapur and Hali in Pernem Taluka.

**Ref to requisition No:** SDI/WDVII/WRD/F. 353/2020-21/143 Dated: 12/10/2020.

**Qty. Received:** 2 bags each **Date of Receipt:** 15/10/2020 **Tested on:** 15,16,17 & 19/10/2020 **Ref to Specification:** CPWD 2009, Vol. I&IS:4031-4-1968

**Sample:** Sand,20mm, **O.S. No.** 4152,4153,4156,4157,4158,4160 & 4155/ SS **Lab. Sample No.:** 9422 TO 9430 **Tested by:** Mrs. S.B. Naik Shirodkar, JE.  
12.5mm size aggrt, & 1 beg cement

**R E P O R T 01 OF 02**

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> (L.S.No.9424 & 9426)	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 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.</b>							
3.	<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> )			
4.	<b>12.5 mm Size Aggregate:</b> (L.S.No.9425 & 9427)	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 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.</b>							
5.	<b>Coarse Sand:</b> (L.S.No.9428)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 3.80% : - 4.44% : - 2.60 : - II	6.	<b>Coarse Sand:</b> (L.S.No.9429)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 4.20% : - 5.68% : - 2.24 : - III
To be used for – PCC 1:3:6 & RCC 1:1.5:3			<b>REMARK: The observed results are within the permissible limits of the coarse sand.</b>				

Junior Engineer

Assistant Engineer

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12.5mm size aggrt, & cement

**R E P O R T 02 OF 02**

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
7.	<b>Cement:</b> Ultratech cement, bearing IS:269 Ordinary Portland cement, Manuf. date: Week <u>35</u> Month <u>Sep</u> , Year' <u>2020</u> . CM/L = <u>7171769</u> Qty. rep. – _____.		i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 0.88 % ----- (It should not be more than 10%) : 31.50% (It should be in the neighborhood of 35%) : 150 minutes ---- (It should not be less than 30 minutes) : 295 minutes -- (It should not be more than 600 minutes)	
To be used for – PCC 1:3:6 & RCC 1:1.5:3 <b>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</b>					

Copy to: 1. The Assistant Engineer, SDI, WDVII, WRD, Dhargal, Pernem – Goa.

2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.

3. Copy Submitted to The Executive Engineer, W.D.VII, WRD, Dhargal, Pernem – Goa.

4. Q.C. Lab file

5. Bill File.

**Junior Engineer**

**Assistant Engineer**