



**GEOTECHNICAL TESTING REPORT
ON STABILIZED SOIL CORE SAMPLES COLLECTED
FROM A ROAD PROJECT OF PUBLIC WORKS
DEPARTMENT, GOVERNMENT OF KERALA**

CONSULTANCY SERVICES

GEOTECHNICAL ENGINEERING DIVISION

DEPARTMENT OF CIVIL ENGINEERING

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COLLECTED FROM A ROAD PROJECT OF PUBLIC WORKS DEPARTMENT,
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Job No. 3380/F

INTRODUCTION

M/S Vishwa Samudra Engineering private Limited, Muthukuru (V & P), Nellore with their technical partners M/S Avani Ecoprojects Private Limited, Hyderabad have executed 5.9 km long road project using Asphalt full depth recycling & Soil stabilization technology for Public Works Department, Government of Kerala using an additive with brand name of StabilRoad. In this connection Sudheer Kalidindi, Senior Manager of Vishwa Samudra Engineering Private Limited, Nellore has requested the Geotechnical Engineering Division of National Institute of Technology – Warangal to test the stabilized core samples collected from the above project work for their compressive strength and water absorption vide letter dated 26th November 2018.

DETAILS OF SAMPLES

Three core samples were collected at different chainages of the road executed and these were sent to the soil mechanics laboratory of the geotechnical engineering division for testing. The details of the samples along with identification numbers and location of collection are given in table 1.

Table 1: Details of supplied core samples

S. No.	Sample reference no.	Location of the core sample
1	C 3	3+800 meters chainage, 1.5 m from Road LHS
2	C 7	4+400 meters chainage, 1.8 m from Road LHS
3	C 9	4+840 meters chainage, 1.5 m from Road RHS

The following tests were conducted as per IS code of practice on 27th November 2018.

1. Compressive strength of the core samples
2. Water absorption

The test results are presented in table 2.

Table 2: Results of tests conducted on the supplied stabilized soil core samples

S. No	Location	Core length (cm)	Core diameter (cm)	L/d ratio	Weight of sample (Kg)	Compressive strength (kg/cm ²)	Correction factor for L/d ratio	Corrected compressive strength (kg/cm ²)	Water Absorption (%)
1	C 3	165	145	1.138	6405	139.2	0.905	125.9	6.1
2	C 7	168	145	1.159	6360	66.6	0.905	60.3	7.04
3	C 9	182	145	1.255	6960	121.0	0.905	109.5	6.96

The correction factors for different L/D ratio (<2) are obtained from IS 516-1959.


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