



# केंद्रीय सड़क अनुसंधान संस्थान

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## CENTRAL ROAD RESEARCH INSTITUTE

(COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH)

Delhi-Mathura Road, P.O. CRRI, New Delhi-110 025 (INDIA)

CRRI/GTE/CNP/SS/2018 - 19/VSEPL-3

Date: 24/10/2018

To

Srinivas Vallabhaneni,  
CEO cum Director  
Vishwa Samudra Engineering Private Limited,  
Plot No. 379, Road No. 10,  
Jubilee Hills, Hyderabad - 500033

**Sub: Compressive strength test results of stabilized cores collected from Krishnapatnam port (AP), Poranki (AP) and Hyderabad (TS)**

M/s Vishwa Samudra Engineering Private Limited (VSEPL), Hyderabad has sponsored a project titled "Evaluation of three roads (Krishnapatnam port (AP), Poranki (AP) & Hyderabad (TS)) stabilized with cement and stabilroad stabilizer". The team visited the sites (Krishnapatnam port (AP), Poranki (AP) and Hyderabad (TS)) from 05/10/2018 to 08/10/2018 and collected the field stabilized cores and soil samples. To determine the compressive strength of field cores, the samples were tested (on 22/10/2018) at KDM Engineers (India) private limited (NABL accredited), Hyderabad. The details of cores, location and compressive strength test results for three roads are given in Table 1, 2 and 3.

**Table 1 Compressive strength of stabilized cores collected from roads in Krishnapatnam port (AP)**

Core No	Road No.	Core location	Compressive strength (MPa)		Remarks
			Cylindrical	Equivalent Cube strength	
C - 1	3	Ch 69, 1.10 m from RHS of road edge	8.43	10.54	<ul style="list-style-type: none"> <li>Murum soil mixed with cement and stabilroad stabilizer (Dosage per square meter: 84 kg of cement and 2.2 kg of stabilroad stabilizer)</li> <li>In-situ mill depth = 400 mm</li> <li>Age of road: 18 months</li> </ul>
C - 2	3	Ch 177.20, 1.50m from LHS of road edge	12.17	15.21	
C - 8	2	Ch 350, 2.30 m from LHS of road edge	11.04	13.80	
C - 10	1	Ch 115, 2.10 m from RHS of road edge	8.78	10.98	
C - 11	1	Ch 337, 2.40 m from LHS of road edge	7.79	9.74	
C - 12	S - curve	Ch 40, 1.30 m from RHS of road edge	7.34	9.18	
C - 14	S - curve	Ch 85, 1.40 m from LHS of road edge	7.78	9.73	<ul style="list-style-type: none"> <li>Existing asphalt road material mixed with cement and stabilroad stabilizer (Dosage per square meter: 45 kg of cement and 1.6 kg of stabilroad stabilizer)</li> <li>In-situ mill depth = 300 mm</li> <li>Age of road: 18 months</li> </ul>
C - 16	Berth No. 3	Ch 70, 3.0 m from RHS of road edge	6.37	7.96	
C - 17	Berth No. 3	Ch 310, 3.80 m from RHS of road edge	6.05	7.56	

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Table 2 Compressive strength of stabilized cores collected from Salipeta - Poranki road(AP)

Core No	Core location	Compressive strength (MPa)		Remarks
		Cylindrical	Equivalent Cube strength	
C - 18	Ch 2.165 km, 0.90 m from RHS of road edge	10.15	12.69	<ul style="list-style-type: none"> <li>Existing asphalt road material mixed with cement and stabilroad stabilizer (Dosage per square meter 35 kg of cement and 1.2 kg of stabilroad stabilizer)</li> <li>In-situ mill depth = 300 mm</li> <li>Age of road: 3.5 months</li> </ul>
C - 19	Ch 2.030 km, 0.80m from RHS of road edge	8.42	10.53	
C - 20	Ch 1.878 km, 1.10 m from LHS of road edge	10.17	12.71	
C - 22	Ch 1.623 km, 1.80 m from RHS of road edge	5.30	6.63	
C - 32	Ch 0.508, 3.50 m from RHS of road edge	10.14	12.68	
C - 26	Ch 0.074 km, 1.40 m from LHS of road edge	4.55	5.69	<ul style="list-style-type: none"> <li>Murum soil mixed with cement and stabilroad stabilizer (Dosage per square meter: 35 kg of cement and 1.2 kg of stabilroad stabilizer)</li> <li>In-situ mill depth = 300 mm</li> <li>Age of road: 3.5 months</li> </ul>
C - 28	Ch 0.249 km, 1.80 m from LHS of road edge	7.51	9.39	

Table 3 Compressive strength of stabilized cores collected from road (NTR Marg to Telugu Thali Flyover), Hyderabad

Core No	Core location	Compressive strength (MPa)		Remarks
		Cylindrical	Equivalent Cube strength	
C - 35	Ch 0.070 km, 1.50 m from RHS of road edge	10.51	13.14	<ul style="list-style-type: none"> <li>Stabilized asphalt recycling road material with cement and stabilroad stabilizer (Dosage per square meter: 45 kg of cement and 1.6 kg of satbilroad stabilizer)</li> <li>In-situ mill depth = 300 mm</li> <li>Age of road: 8 months</li> </ul>
C - 36	Ch 0.310 km, 4.60m from (centre) road edge	10.64	13.30	
C - 37	Ch 1.010 km, 2.10 m from RHS of road edge	6.47	8.09	
C - 39	Ch 0.130 km, 2.20 m from LHS of road edge	6.75	8.44	
C - 41	Ch 0.960 km, 7.80 m from (centre) road edge	5.88	7.35	

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