North East Soil Testing (NEST), Ujan Abhoynagar, South Bank of Bazar Lake, Agartala, Tripura (West) Laboratory

ISO/IEC 17025: 2005 **Accreditation Standard** 

Discipline **Mechanical Testing** Issue Date 22.04.2014

**Certificate Number** T-2116 Valid Until 21.04.2016

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Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection			
I. BUILDING MATERIALS						
Concrete	Compressive strength	IS 516-1959, RA 2008	8 to 80 N/mm <sup>2</sup>			
Burnt Clay Bricks	Compressive Strength	IS 3495 (Part-I) 1992, RA 2011	10 to 90 N/mm <sup>2</sup>			
	Efflorescence	IS 3495 (Part-III) 1992, RA 2011	Visual			
	Water absorption	IS 3495 (Part-II) 1992, RA 2011	2% to 25%			
Aggregate	Sieve Analysis	IS 2386 (Part-I) 1963, RA 2011	75 micron to 125 mm			
	Flakiness Index	IS 2386 (Part-I) 1963, RA 2011	2% to 40%			
	Elongation	IS 2386 (Part-I) 1963, RA 2011	2% to 40%			
	Specific Gravity	IS 2386 (Part-III) 1963, RA 2011	1.5 to 4.0			
	Water absorption	IS 2386 (Part-III) 1963, RA 2011	1% to 10%			
	Crushing Value	IS 2386 (Part-IV) 1963, RA 2011	1% to 60%			
	Impact Value	IS 2386 (Part-IV) 1963, RA 2011	1% to 50%			
	10% Fine	IS 2386 (Part-IV) 1963, RA 2011	1% to 60%			
	Silt Content	IS 2386 (Part-I) 1963, RA 2011	1% to 5%			
	Material of Test  TLDING MATERIAL  Concrete  Burnt Clay Bricks	Material of Test  TILDING MATERIALS  Concrete Compressive strength  Burnt Clay Bricks Compressive Strength  Efflorescence  Water absorption  Aggregate Sieve Analysis  Flakiness Index  Elongation  Specific Gravity  Water absorption  Crushing Value  Impact Value  10% Fine	Material of Test   against which tests are performed			

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Cement	Consistency	IS 4031 (Part-IV) 1988, RA 2009	25% to 40%
		Initial Setting Time	IS 4031 (Part-V) 1988, RA 2009	5 min to 250 min
		Final Setting Time	IS 4031 (Part-V) 1988, RA 2009	30 min to 700 min
		Compressive strength	IS 4031 (Part-VI) 1988, RA 2009	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
		Soundness by Le-Chatelier Method	IS 4031 (Part-III) 1988, RA 2009	0.05 mm to 10 mm
		Fineness by dry sieving (% retained)	IS 4031 (Part-I) 1988, RA 2010	0 to 10%
5.	Soil	Grain Size Analysis	IS 2720 (Part-IV) 1985, RA 2010	75 micron to 40 mm
		Liquid Limit	IS 2720 (Part-V) 1985, RA 2010	25% to 120%
		Plastic Limit	IS 2720 (Part-V) 1985, RA 2010	15% to 40%
		Light Compaction	IS 2720 (Part-VII) 1985, RA 2011	MDD: 1 to 2.50 gm/cc OMC: 5% to 40.0%
		California Bearing ratio	IS 2720 (Part-XVI) 1985, RA 2011	1% to 60%
		Specific Gravity	IS 2720 (Part-III) 1981	2.0 to 2.9
		Moisture content	IS 2720 (Part-II) 1973	2% to 25%