

Laboratory **Alpha Consultancy Services, Padhuanpada, Proof Road, Balasore, Odisha**

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

Certificate Number **TC-7230**

Page 1 of 3

Validity **08.05.2018 to 07.05.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	-------------------------------------------------------------	----------------------------------------

MECHANICAL TESTING

I.	BUILDING MATERIALS			
1.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1)	4.75 mm to 80 mm 0.01 % to 100 %
		Flakiness Index	IS 2386 (Part 1)	1 % to 50 %
		Elongation Index	IS 2386 (Part 1)	1 % to 50 %
		Aggregate Impact value	IS 2386 (Part 4)	1 % to 50 %
		Los Angles Abrasion value	IS 2386 (Part 4)	1 % to 50 %
		Specific gravity	IS 2386 (Part 3)	2 to 4
		Water absorption	IS 2386 (Part 3)	0.1 % to 6 %
		Bulk Density	IS 2386 (Part 3)	1000 kg/m ³ to 3000 kg/m ³
		Crushing Value	IS 2386 (Part 4)	1 % to 60 %
2.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1)	75 micron to 10mm 0.01 % to 100 %
		Specific Gravity	IS 2386 (Part 3)	0.5 to 3.5
		Water absorption	IS 2386 (Part 3)	0.02 % to 5 %
		Bulk Density	IS 2386 (Part 3)	1000 kg/m ³ to 3000 kg/m ³
3.	Common Burnt Clay and Heavy-Duty Building Bricks	Dimension	IS 1077	Length: 3540 mm to 3990 mm Width: 1582 mm to 1930 mm Height: 1570 mm to 1940 mm
		Compressive strength	IS 3495 (Part 1)	1 N/mm ² to 30 N/mm ²
		Water absorption	IS 3495 (Part 2)	0.5 % to 35 %

Mandeep Kumar
Convenor

Alok Jain
Program Director

Laboratory **Alpha Consultancy Services, Padhuanpada, Proof Road, Balasore, Odisha**

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

Certificate Number **TC-7230**

Page 2 of 3

Validity **08.05.2018 to 07.05.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Efflorescence	IS 3495 (Part 3)	Qualitative
		Bulk Density	IS 2180:1988	2 gm/cm ³ to 3 gm/cm ³
4.	Concrete (Hardened)	Compressive Strength	IS 516	50 kg/cm ² to 1600 kg/cm ²
		Flexural Strength	IS 516	3 kg/cm ² to 1000 kg/cm ²
5.	Cement	Fineness by dry sieving (% retained)	IS 4031 (Part 1)	0.1 % to 10 %
		Consistency	IS 4031 (Part 4)	10 % to 40 %
		Initial Setting time	IS 4031 (Part 5)	30 min to 300 min
		Final setting time	IS 4031 (Part 5)	100 min to 700 min
		Soundness by Le-Chatelier Method	IS 4031 (Part 3)	0.1 mm to 10 mm
		Specific Gravity	IS 4031 (Part 11)	2.8 to 3.3
		Compressive strength	IS 4031 (Part 6)	1 N/mm ² to 60 N/mm ²
6.	Bitumen	Softening Point	IS 1205	10 °C to 200 °C
		Penetration	IS 1203	1 mm to 400 mm1/10
II.	SOIL & ROCK			
1.	Soil	Moisture content	IS 2720 (Part 2)	0.1 % to 40 %
		Specific gravity	IS 2720 (Part 3, Sec.1 & Sec. 2)	1 to 4
		Particle Size Distribution (Dry Sieve)	IS 2720 (Part 4)	75 micron to 100 mm 0.01 % to 100 %
		Liquid Limit	IS 2720 (Part 5)	1 % to 300 %
		Plastic Limit	IS 2720 (Part 5)	Non-Plastic -50 %
		Light Compaction	IS 2720 (Part 7)	MDD: 0.5 % to 2.5 % OMC: 1 % to 15 %
		Heavy Compaction	IS 2720 (Part 8)	MDD: 1 % to 3.00 %

Mandeep Kumar
Convenor

Alok Jain
Program Director

Laboratory **Alpha Consultancy Services, Padhuanpada, Proof Road, Balasore, Odisha**

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

Certificate Number **TC-7230**

Page 3 of 3

Validity **08.05.2018 to 07.05.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Free Swell index	IS 2720 (Part 40)	OMC: 1 % to 25 % 1 % to 50 %

Mandeep Kumar
Convenor

Alok Jain
Program Director