Laboratory	Essar Laboratories & Research Centre, Fazal Manzil, 36, Suvidha Colony, Keshwapur, Hubli, Karnataka Location 1: Fazal Manzil, 36, Suvidha Colony, Keshwapur, Hubli, Karnataka Location 2: Rose Ville, 4 th Cross, Gopanakoppa, Hubli, Karnataka		
Accreditation Standard	ISO/IEC 17025: 2005		
Certificate Number	TC-6191 (in lieu of T-3539)	Page 1 of 2	
Validity	07.08.2017 to 06.08.2019	Last Amended on 12.10.2017	

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

MECHANICAL TESTING

LOC	CATION 1			
I.	METALLOGRAPHY TEST			
1.	Austenitic	Inter Granular Corrosion		
	Stainless Steel	Practice A	ASTM A262	Qualitative (500 X)
		Practice B	ASTM A262	(1 to 60) mils per year
		Practice C	ASTM A262	(1 to 60) mils per year
		Practice E	ASTM A262	Qualitative (500 X)
		Practice F	ASTM A262	(2 to 60) mils per year
П.	MECHANICAL PROPERTIES OF METALS			
1.	Austenitic Stainless Steel	Charpy Impact (V-notch)	IS 1757 (Part 1)	1 joule to 300 joule (–) 100 °C to Ambient

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			performed	

LOCATION 2

Ι.	BUILDING MATERI	ALS		
1.	Bricks	Water Absorption	IS 3495 (Part 2)	0.1 % to 25 %
		Compressive Strength	IS 3495 (Part 1)	1 N/mm ² to 20 N/mm ²
2.	Concrete Blocks	Water Absorption	IS 2185 (Part 1) Annex.–E	1 % to 10 %
	(Hollow & Solid)	Compressive Strength	IS 2185 (Part 1) Annex.–D	1 N/mm ² to 15 N/mm ²
		Block Density	IS 2185 (Part 1) Annex.–C	1000 kg/m ³ to 2200 kg/m ³
3.	Hardened	Compressive Strength	IS 516	10 N/mm ² to 80 N/mm ²
	Concrete	Flexural Strength	IS 516	1 N/mm ² to 15 N/mm ²
4.	Paver Blocks	Water Absorption	IS 15658 (Annexure C)	1 % to 20 %
		Compressive Strength	IS 15658 (Annexure D)	10 N/mm ² to 80 N/mm ²
Ш.	MECHANICAL PRO	DPERTIES OF METALS		
1.	Steel Products	Tensile Strength	IS 1608	100 MPa to 900 MPa
		Yield Strength		100 MPa to 700 MPa
		% Elongation		1 % to 40 %
		Bend	IS 1599	Qualitative
				(Mandrel Dia. in mm:
				16, 20, 24, 30, 32)
2.	Steel TMT Bar	Mass per Metre	IS 1786	0.1 kg/m to 10 kg/m
		Tensile Strength	IS 1608	100 MPa to 900 MPa
		Yield Strength		100 MPa to 700 MPa
		% Elongation		1 % to 40 %
		Bend and	IS 1599	Qualitative
		Re-bend		(Mandrel Dia. in mm:
				16, 20, 24, 30, 32)