Omega Consultant Services, Testing Laboratory, 256 A, M.G. Road, Purbasan, Thakurpukur, Kolkata, West Bengal Laboratory

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

Field **Mechanical Testing** Issue Date 03.02.2014

**Certificate Number** T-2141 Valid Until 02.02.2016

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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
I. ME	TAL & METAL PROD	OUCTS		
1.	Ferrous & Non Ferrous Metals (Plates, Round Bars, Wires, Reinforcement bars, pipes including Welded Joints)	Tensile Strength Yield Stress 0.2% Proof Stress % Elongation Weight per meter	IS 1608-2005 ASTM-A-370-05 IS-1786-2008 BS-2874-1986	0.1 kN to 600 kN 0.2 kN to 1000 kN
		Bend Test do –( For Welded Joints)	IS 1599: 2012 ASTM SEC IX:2010,	Mandrel dia 16 mm to 240 mm
		do –( Foi Weided Joints)	QB-466.2	
		Rebend Test	IS 1786: 2008	Mandrel dia 18 mm to 64 mm
		Rockwell Hardness	IS 1586: 2000: Reaffirmed 2006	20 HRB to 99 HRB 20 HRC to 70 HRC
II. BU	ILDING MATERIALS			
1.	Stone aggregate	Sieve analysis	IS:2386 (Part 1): 1963 (Reaffirmed 2007)	0 to 100%
		Aggregate Impact Value	IS:2386 (Part 4): 1963 (Reaffirmed 2007)	1% to 60 %
		Crushing Value	IS:2386 (Part 4): 1963 (Reaffirmed 2007)	1% to 60 %
		10% Fine value	IS:2386 (Part 4) : 1963 (Reaffirmed 2007)	10 kN to 1000 kN

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	Stone aggregate	Flakiness index	IS:2386 (Part 1) : 1963 (Reaffirmed 2007)	2 % to 45 %
		Elongation index	IS:2386 (Part 1) : 1963 (Reaffirmed 2007)	2 % to 45 %
		Water absorption	IS:2386 (Part 3) : 1963 (Reaffirmed 2007)	0.1% to 20 %
		Specific gravity	IS:2386 (Part 3) : 1963 (Reaffirmed 2007)	1 to 3
		Fineness Modulus	ASTM C 136-01	2 to 4
2.	Fine Aggregate	Sieve	IS: 2386(Pt. I) - 1963	0 % to 100 %
		Silt content	IS: 2386(Pt. II) – 1963	0.05 % to 5 %
		Water absorption	IS: 2386(Pt. III) – 1963	0.1 % to 20 %
		Specific Gravity	IS: 2386(Pt. III) – 1963	1 to 3
		Fineness Modulus	ASTM C 136-01	0.5 to 3
3.	Bricks	Compressive strength	IS: 3495 (Part 1) :1992 (Reaffirmed 2007)	0.10 N/mm <sup>2</sup> 30 N/mm <sup>2</sup>
		Water absorption	IS: 3495 (Part 2) :1992 (Reaffirmed 2007)	5 % to 30 %

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	Bricks	Dimension	IS: 1077-1992 (Reaffirmed 1997)	Length: 3000 mm to 5000 mm Width: 1500 mm to 2500 mm Height: 500 mm to 2000 mm
		Efflorescence	IS: 3495 (Part 3):1992 (Reaffirmed 2007)	Visual
4.	Cement (Ordinary Portland Cement / Portland Pozzolana Cement/ Portland Slag Cement)	Consistency	IS: 4031(Part. 4):1988 (Reaffirmed 2005)	20 % to 40 %
		Initial setting time Final setting time	IS: 4031(Part. 5):1988 (Reaffirmed 2009)	10 min to 1440 min
		Soundness (La-chatelier)	IS: 4031(Part. 4):1988 (Reaffirmed 2005)	1mm to 15mm
		Fineness By Blain appt.	IS: 4031(Part. 2):1999 (Reaffirmed 2008)	$200 \text{ m}^2/\text{kg} \text{ to } 400 \text{ m}^2/\text{kg}$
		By Dry Sieving	IS: 4031(Part. 1):1996 (Reaffirmed 2005)	1% to 20 %
		Compressive strength	IS: 4031(Part. 6):1988 (Reaffirmed 2005)	$10 \text{ N/mm}^2 \text{ to } 100 \text{ N/mm}^2$
5.	Hardened Concrete	Compressive strength	IS: 516-1999 (Reaffirmed 2008)	$10 \text{ N/mm}^2 \text{ to } 40 \text{ N/mm}^2$

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	Hardened Concrete	Permeability	DIN 1048(Pt. V)-1991 MORTH (Clause-1716.5)	Up to 30 mm
		RCPT	ASTM C1202-05	5 to 50000 Coulomb
		Water Absorption	IS: 2185(P-1)-2005	1% to 10 %