

Laboratory	APEX Assessment Labs Private Limited, Plot No. 7, Anand Industrial Estate, Mohan Nagar, Ghaziabad, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	17.12.2013
Certificate Number	T-1633	Valid Until	16.12.2015
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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
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I. BUILDING MATERIALS

1. Building Lime	Insoluble Residue	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 20 %
	Loss on Ignition	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 30 %
	Silicon dioxide	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 20 %
	Ferric oxide	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 8.0 %
	Aluminum oxide	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 8.0 %
	Calcium Oxide	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 80 %
	Magnesium Oxide	IS: 6932 (P-1)-1973 (RA 2009)	0.1% to 15 %
2. Cement and Other Mortar (OPC & PPC)	Silicon dioxide	IS: 4032-1985 (RA 2009)	0.1% to 30 %
	Aluminum oxide	IS: 4032-1985 (RA 2009)	0.1% to 10 %
	Iron oxide	IS: 4032-1985 (RA 2009)	0.1% to 15 %
	Magnesium Oxide	IS: 4032-1985 (RA 2009)	0.1% to 15 %
	Insoluble Residue	IS: 4032-1985 (RA 2009)	0.1% to 25 %
	Sulphuric Anhydride	IS: 4032-1985 (RA 2009)	0.1% to 8.0 %
	Loss on Ignition	IS: 4032-1985 (RA 2009)	0.1% to 10 %
3. Concrete	Calcium Oxide	IS: 4032-1985 (RA 2009)	0.1% to 70 %
	Sulphate	IS: 4032-1985 (RA 2009)	0.05% to 5 %
	Chloride	IS: 6925-1973 (RA 2008)	0.05% to 5 %

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4.	Sodium Silicate (Liquid)	Matter soluble in water	IS: 14212 – 1995 (RA 2006)	0.01% to 5 %
		Total soluble silicate	IS: 14212 – 1995 (RA 2006)	1% to 50 %
		Total alkalinity	IS: 14212 – 1995 (RA 2006)	1% to 50 %
		Total soluble silica	IS: 14212 – 1995 (RA 2006)	1 % to 50 %
		Chloride	IS: 14212 – 1995 (RA 2006)	0.01% to 5 %
		Sulphate	IS: 14212 – 1995 (RA 2006)	0.01% to 5 %
		Relative Density	IS: 14212 – 1995 (RA 2006)	1.0 to 2.0
5.	Admixture	Dry material content	IS: 9103-1999 (RA 2004)	1% to 50 %
		Ash content	IS: 9103-1999 (RA 2004)	0.5% to 20 %
		Relative density	IS: 9103-1999 (RA 2004)	1.0 to 2.0
		pH Value	IS: 9103-1999 (RA 2004)	1 to 10
6.	Bitumen and Bituminous Items	Flash point	IS: 1209 -1978 (RA 1988)	30°C to 400°C
		Softening point	IS: 1205 -1978 (RA 1988)	30°C to 200°C
		Specific gravity	IS: 1202 -1978 (RA 1990)	0.7 to 1.20
		Loss on heating	IS: 1212 -1978 (RA 1988)	0.1% to 10%
		Solubility in Trichloroethylene	IS: 1216 -1978 (RA 1988)	0.1% to 100%
		Bitumen content	IS: 1195 -2002 (RA 2007)	1% to 30%

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II. METALS & ALLOYS

1.	Steel	Carbon	IS: 228 (P-1) 1987 (RA 2008)	0.02% to 2.0 %
		Manganese	IS: 228 (P-2) 1987 (RA 2008)	0.05% to 2.0 %
		Phosphorus	IS: 228 (P-3) 1987 (RA 2008)	0.001% to 0.2 %
		Nickel	IS: 228 (P-5) 1987 (RA 2009)	0.1% to 10 %
		Chromium	IS: 228 (P-6) 1987 (RA 2009)	0.1% to 20 %
		Silicon	IS: 228 (P-8) 1987 (RA 2009)	0.05% to 3.0 %
		Sulphur	IS: 228 (P-9) 1987 (RA 2009)	0.001% to 0.20%
2.	Cast Iron & SG Iron	Total carbon	IS: 12308 (P-1) 1991 (RA 2006)	0.02% to 5.0 %
		Phosphorus	IS: 12308 (P-5) 1991 (RA 2006)	0.002% to 0.30 %
		Silicon	IS: 12308 (P-6) 1991 (RA 2006)	0.05% to 4.0 %
		Sulphur	IS: 12308 (P-2) 1987 (RA 2007)	0.002% to 0.20 %
		Manganese	IS: 12308 (P-3) 1991 (RA 2006)	0.05% to 1.0 %
3.	Steel Products	Zinc coating (Mass/unit area)	IS: 6745-1972 (RA 2006)	1 g/m ² to 1500 g/m ²
		Uniformity of coating	IS: 2633-1986 (RA 2006)	Observation
4.	Aluminium Products	Thickness of hard Anodic coating	IS: 5523-1983 (RA 2010)	0.1 micron to 50 micron

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5.	Ferrous & Non Ferrous Metals	(1) Corrosion resistance of electroplated and anodized Aluminium coating		
		(a) By Neutral salt spray	IS: 9844-1981 (RA 2010)	Observation
		(b) By Acetic acid salt spray	IS: 6910-1985 (RA 2006)	Observation
		(2) Thickness of chrome plating	IS: 3203-1982 (RA 2006)	0.02 micron to 3 micron
		(3) Thickness of Nickel plating	IS: 3203-1982 (RA 2006)	0.1 micron to 30 micron

III. COAL, COKE & OTHER SOLID FULES

1.	Coal & Coke	Moisture content	IS: 1350 (P-1) 1984 (RA 2001)	0.1% to 60 %
		Ash content	IS: 1350 (P-1) 1984 (RA 2001)	0.1% to 70 %
		Volatile matter	IS: 1350 (P-1) 1984 (RA 2001)	0.1% to 50 %
		Fixed carbon	IS: 1350 (P-1) 1984 (RA 2001)	0.1% to 50 %
		Gross calorific value	IS: 1350 (P-2) 1975 (RA 2001)	200 Cal/g to 10000 Cal/g
		Sulphur	IS: 1350 (P-3) 1969 (RA 2001)	0.1% to 10 %
		Nitrogen	IS:1350 (P-4/Sec 2)1999 (RA 2001)	0.1% to 5 %

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IV. WATER

1. Water for Construction Purpose (IS: 456)	pH Value	IS: 3025 (P-11) 1983 (RA 2006)	1 to 12
	Acidity	IS: 3025 (P-22) 1986 (RA 2003)	1 mg/l to 1000 mg/l
	Alkalinity	IS: 3025 (P-23) 1986 (RA 2003)	1 mg/l to 1000 mg/l
	Organic solids	IS: 3025 (P-18) 1984 (RA 2006)	10 mg/l to 1000 mg/l
	Inorganic solids	IS: 3025 (P-18) 1984 (RA 2006)	10 mg/l to 5000 mg/l
	Sulphate	IS: 3025 (P-24) 1986 (RA 2003)	1 mg/l to 2000 mg/l
	Chloride	IS: 3025 (P-32) 1988 (RA 2009)	1 mg/l to 5000 mg/l
	Suspended matter	IS: 3025 (P-17) 1984 (RA 2006)	10 mg/l to 500 mg/l

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