

Laboratory	Quality Marking & Testing Laboratory, M.P. Laghu Udyog Nigam Limited, Pologround Industrial Area, Indore, Madhya Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	30.04.2015
Certificate Number	T-0262	Valid Until	29.04.2017
Last Amended on	06.05.2015	Page	1 of 5

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	METALS & ALLOYS			
1.	Iron & Steel Products (Wrought, Cast Rolled and Fabricated items)	Carbon	IS 228 (Part 1): 1987 (RA 1997)	0.05 % to 2.5 %
		Sulphur	IS 228 (Part 9): 1989 (RA 1999)	0.01 % to 0.08 %
		Phosphorus	IS 228 (Part 3): 1987 (RA 1997)	0.01 % to 0.08 %
		Manganese	IS 228 (Part 2): 1987 (RA 1997)	0.1 % to 2 %
		Silicon	IS 228 (Part 8): 1989 (RA 1999)	0.05 % to 2 %
		Nickel	IS 228 (Part 5): 1987 (RA 1997)	0.10 % to 14 %
	Chromium	IS 228 (Part 6): 1987 (RA 1997)	0.10 % to 20 %	
2.	Copper & Copper Alloys Products	Tin	IS 3685: 1966 (RA 1996) IS 4027 (Part 5): 1987 (RA 1996)	0.10 % to 12 %
		Lead	IS 3685: 1966 (RA 1996) IS 4027 (Part 1): 1987 (RA 1996)	0.10 % to 20 %
		Copper	IS 3685: 1966 (RA 1996) IS 4027 (Part 1): 1987 (RA 1996)	50 % to 99.99 %

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	Copper & Copper Alloys Products	Zinc	IS 3685: 1966 (RA 1996) IS 4027 (Part 6): 1987 (RA 1996)	0.10 % to 45 %
		Iron	IS 3685: 1966 (RA 1996) IS 4027 (Part 8): 1991	0.10 % to 1.0 %
		Nickel	IS 4027 (Part 4): 1987 (RA 1996)	0.10 % to 2 %
3.	Aluminium & Aluminium Alloys Products	Silicon	IS 504 (Part 1): 2002	0.10 % to 10 %
		Manganese	IS 504 (Part 5): 2002	0.05 % to 2 %
II. INDUSTRIAL & FINE CHEMICALS				
1.	Bleaching Powder	Available Chlorine	IS 1065: 1989	1 % to 45 %
		Stability	IS 1065: 1989	0.5 % to 100 %
		Moisture	IS 1065: 1989	0.10 % to 5 %
2.	Chlorine Tab.	Moisture	IS 9825: 2003	0.10 % to 5 %
		Available Chlorine	IS 9825: 2003	1 % to 45 %
3.	Sodium Hypo Chlorite	Available Chlorine	IS 11673: 1992 (RA 1997)	1 % to 45 %
		Relative Density	IS 11673: 1992 (RA 1997)	1 to 1.20
		Free Alkali	IS 11673: 1992 (RA 1997)	0.1 g/L to 10 g/L
		Free Sodium Carbonate	IS 11673: 1992 (RA 1997)	0.1 g/L to 5 g/L

**Rini Narayan
Convenor**

**N. Venkateswaran
Program Manager**

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4.	Alum	Soluble Iron Compounds	IS 299: 1989 (RA 1999)	0.1 % to 2 %
		Water Soluble Aluminium Compound	IS 299: 1989 (RA 1999)	0.5 % to 20 %
		pH Value	IS 299: 1989 (RA 1999)	1 to 14
		Basicity/Acidity	IS 299: 1989 (RA 1999)	0.1 % to 1 %
		Lead	IS 299: 1989 (RA 1999)	2 ppm to 50 ppm
		Arsenic	IS 299: 1989 (RA 1999)	1 ppm to 20 ppm
		Water Insoluble Matter	IS 299: 1989 (RA 1999)	0.01 % to 2 %
5.	Sulphuric Acid	Total Acidity	IS 266: 1993	0.1 % to 99 %
		Residue on Ignition	IS 266: 1993	0.01 % to 1 %
		Organic Matter	IS 266: 1993	Qualitative
III. FOOD AND AGRICULTURAL PRODUCTS				
1.	Alcoholic Drinks, Beverages (Country Spirit, Rectified Spirit, Neutral Spirit, Whisky, Rum, Gin, Beer, Brandy)	Ethyl Alcohol	IS 3752: 2005	2 % to 100 %
		Residue on Evaporation	IS 3752: 2005 IS 323: 1959 (RA 1999)	0.01 % to 2.5 %
		Esters	IS 3752: 2005 IS 323: 1959 (RA 1999)	2.5 g/100 L to 50 g/100 L

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	Alcoholic Drinks, Beverages (Country Spirit, Rectified Spirit, Neutral Spirit, Whisky, Rum, Gin, Beer, Brandy)	Volatile Acid	IS 3752: 2005 IS 323: 1959 (RA 1999)	10 g/100 L to 100 g/100 L
		Higher Alcohol	IS 3752: 2005 IS 323: 1959 (RA 1999)	10 g/100 L to 350 g/100 L
		Aldehydes	IS 3752: 2005 IS 6613: 2002	1.0 g/100 L to 45 g/100 L
		Furfural	IS 3752: 2005	0.5 g/100L to 12 g/100L
		Methyl Alcohol	IS 3752: 2005	Qualitative
		Copper	IS 3752: 2005	0.0002 g/100ml to 1 g/100ml
		Alkalinity	IS 323: 1959 (RA 1995)	Qualitative
		Lead	IS 323: 1959 (RA 1995)	0.00005 g/100 ml to 1 g/100 ml
		Relative Density of Alcohol	IS 3506: 1989	0.99 to 0.77
		Total Acids	IS 3752: 2005	02 mg/100 L to 200 mg/100 L
2.	Spices & Condiments (Chilly whole & powder, Coriander Powder, Turmeric whole & Powder, Curry powder)	Moisture	IS 1797: 1985 (RA 2001)	0.1 % to 15 %
		Total Ash	IS 1797: 1985 (RA 2001)	0.1 % to 10 %
		Acid Insoluble Ash	IS 1797: 1985 (RA 2001)	0.01 % to 2 %
		Crude Fibre	IS 1797: 1985 (RA 2001)	1 % to 35 %
		Non-volatile Ether Extract	IS 1797: 1985 (RA 2001)	1 % to 35 %

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IV. METALLIC COATINGS AND TREATMENT SOLUTIONS				
	Metallic Coatings	Uniformity of Zinc coating	IS 2633: 1986 (RA 1998)	Qualitative
	Barbed Wire, Steel Tube, Structural steel, Galv.Fastners, Anodic coating on Al. & its alloys	Mass of Zinc coating	IS 4826: 1979 (RA 1998) IS 6745: 1972 (RA 1998)	5 g/mt ² to 1000 g/mt ²
		Anodic coating thickness	IS 5523: 1983 (RA 1999)	1 micron to 25 micron
V. WATER				
1.	Water for construction	pH	IS 3025 (Part 11): 1983	0.1 to 14
		Limit of Acidity	IS 3025 (Part 22): 1986	0.01 ml to 20 ml
		Limit of Alkalinity	IS 3025 (Part 23):1986	0.01 ml to 30 ml
		Chlorides	IS 3025 (Part 32): 1988	1 mg/L to 250 mg/L
		Organic Solids	IS 3025 (Part 18): 1984	1 mg/L to 400 mg/L
		Inorganic Solids	IS 3025 (Part 18): 1984	1 mg/L to 1000 mg/L
		Suspended Matter	IS 3025 (Part 17): 1984	1 mg/L to 1000 mg/L
		Sulphates	IS 3025 (Part 24): 1986	1 mg/L to 400 mg/L
VI. Paper & Pulp				
1.	Paper & Paper Boards	pH	IS 1060 (Part 1): 1966	1 to 4
		Substance	IS 1060 (Part 1): 1966	1 g/sq.m to 700 g/sq.m

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