Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 1 of 10

Material of Test against which tests are Limits of Detection performed
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LOCATION: 1

I. PLASTICS, RUBBER AND LEATHER

	Plastic Containers For Drinking Water	Brimful capacity	IS 2798: 1998 (RA 2009)	100 mL to 20 L
		Wall thickness	IS 2798: 1998 (RA 2009)	0.05 mm to 20 mm
		Transparency	IS 15410: 2003 (RA 2009)	50 % to 100 %
		Leakage test	IS 2798: 1998 (RA 2009)	Qualitative
		Drop test	IS 2798: 1998 (RA 2009)	Qualitative
2.	Poly Ethylene Pouches For Mineral Water	Drop Test	IS 15609: 2005	Qualitative
		Dart Impact Resistance	IS 2058	Qualitative
		Stack load test	IS 15609: 2005	Qualitative
		Ink adhesion test	IS 15609: 2005	Qualitative
		Tensile strength	IS 2058	15 N/mm ² to 30 N/mm ²
		Elongation at break	IS 2058	100 % to 700 %

Nagar, Industrial Area, New Delhi

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Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 2 of 10

S.No. Product / Specific Test Performed Material of Test	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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LOCATION: 2

I. MECHANICAL PROPERTIES OF MATERIALS

1.	Structural Steel/ High Strength Deformed Bars	Mass	IS 1786: 2008 (RA 2012) IS 2062: 2011	0.1 kg/meter to 10 kg/meter
		Tensile strength	IS 1608: 2005	$200\ N/\ mm^2$ to $900\ N/mm^2$
		Elongation	IS 1608: 2005	5 % to 40 %
		Yield stress	IS 1608: 2005	$200\ N/mm^2\ to\ 800\ N/mm^2$
		Bend Test	IS 1599: 2012	Qualitative (Mandrel size: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 30, 36, 56, 70, 72, 75, 96, 120, 128, 150 & 200 mm)
		Rebend Test	IS 1786: 2008	Qualitative (Mandrel size: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 30, 36, 56, 70, 72, 75, 96, 120, 128, 150 & 200 mm)
2.	Steel Tubes/Pipe	Mass	IS 1161: 1998 (RA 2012) IS 1239 (Part 1): 2004 (RA 2010)	0.1 kg/meter to 20 kg/meter
		Tensile strength	IS 1608: 2005	150 N/mm ² to 800 N/mm ²
		Elongation	IS 1608: 2005	5 % to 50 %

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 3 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Steel Tubes/Pipe	Yield stress	IS 1608: 2005	150 N/mm ² to 600 N/mm ²
		Flattening test	IS 2328: 2005	Qualitative
		Crushing test	IS 3601: 2006	Qualitative
3.	Galvanized Steel	Mass	IS 277: 2003	0.1 kg/meter to 30 kg/meter
	Sheet (Plain And Corrugated)	Dimension Length Width Thickness	IS 277: 2003	1 mm to 3000 mm 1 mm to 2000 mm 0.1 mm to 250 mm
		Mass of Zinc coating	IS 6745: 1972	$50 \text{ g/m}^2 \text{ to } 1000 \text{ g/m}^2$
		Bend test	IS 277: 2003	Qualitative
		Depth and pitch of the corrugations	IS 277: 2003	0.02 mm to 150 mm
4.	Hard Drawn	Nominal size	IS 432 (Part 2): 1982	5 mm to 150 mm
	Steel Wire	Ultimate Tensile strength	IS 1608: 2005	$200\ N/mm^2\ to\ 800\ N/mm^2$
		Elongation	IS 1608: 2005	2 % to 40 %
		Proof Stress	IS 1608: 2005	150 N/mm ² to 600 N/mm ²
		Reverse bend test	IS 1716: 1985	Qualitative

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 4 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
5.	Mild Steel and Medium Tensile Steel Bars	Nominal size	IS 432 (Part 1): 1982	1 mm to 30 mm
		Mass	IS 1732: 1989	0.5 kg/meter to 30 kg/meter
		Ultimate Tensile strength	IS 1608: 2005	$200\ N/mm^2\ to\ 800\ N/mm^2$
		Yield stress	IS 1608: 2005	150 N/mm ² to 600 N/mm ²
		Elongation	IS 1608: 2005	5 % to 50 %
		Bend Test	IS 1599: 2012	Qualitative
6.	Mild Steel Wire for General Engineering Upto 5.0 mm Wire	Diameter of wire (size)	IS 280: 2006	1 mm to 10 mm
		Tensile strength	IS 1608: 2005	$200\ N/mm^2\ to\ 800\ N/mm^2$
		Wrapping test	IS 1755: 1983	Qualitative
		Freedom from defects	IS 280: 2006	Qualitative
		Coating test (Galvanized coating)	IS 6745: 1972	50 g/m ² to 800 g/m ²
7.	Hollow Steel	Tensile strength	IS 1608: 2005	200 N/mm ² to 800 N/mm ²
		Yield Stress	IS 1608: 2005	150 N/mm ² to 600 N/mm ²
		Elongation	IS 1608: 2005	5 % to 50 %
		Dimension	IS 4923: 1997	10 mm to 300 mm

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 5 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
II.	BUILDING MAT	ERIALS		
1.	Cement (OPC, PPC, PSC)	Fineness (Blaine)	IS 4031 (Part 2): 1999 (RA 2009)	$100 \text{ m}^2/\text{kg}$ to $600 \text{ m}^2/\text{kg}$
	rsc)	Consistency	IS 4031 (Part 4): 1988 (RA 2013)	5 % to 40 %
		Setting time initial	IS 4031 (Part 5): 1988 (RA 2013)	5 minutes to 300 minutes
		Setting time final	IS 4031 (Part 5): 1988 (RA 2013)	30 minutes to 700 minutes
		Soundness by Le chatellier method	IS 4031 (Part 3): 1988 (RA 2013)	0.5 mm to 10 mm
		Soundness by autoclave method	IS 4031 (Part 3): 1988 (RA 2013)	0.001 % to 1 %
		Compressive strength	IS 4031 (Part 6): 1988 (RA 2003)	8 MPa to 60 MPa
		Density	IS 4031 (Part 11): 1988	1.5 g/cc to 3.5g/cc
		Drying shrinkage	IS 4031 (Part 10): 1988 (RA 2013)	0.02 % to 4 %
2.	Fly Ash	Fineness (Blaine)	IS 1727: 1967 (RA 2013)	$100 \text{ m}^2/\text{kg}$ to $600 \text{ m}^2/\text{kg}$
		Retained on 45 Micron IS Sieve	IS 1727: 1967 (RA 2013)	5 % to 40 %

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 6 of 10

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Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 7 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Aggregates	Bulk density for fine aggregates	IS 2386 (Part 3): 1963 (RA 2007)	1 kg/L to 3.5 kg/L
		Aggregate crushing value	IS 2386 (Part 4): 1963 (RA 2007)	1 % to 60 %
		Ten percent fine value	IS 2386 (Part 3): 1963 (RA 2007)	10 Ton to 50 Ton
		Aggregate impact value	IS 2386 (Part 3): 1963 (RA 2007)	1 % to 60 %
		Aggregate abrasion value	IS 2386 (Part 3): 1963 (RA 2007)	1 % to 60 %
		Soundness	IS 2386 (Part 3): 1963 (RA 2007)	0.1 % to 2.5 %
		Organic Impurities	IS 2386 (Part 2): 1963 (RA 2002)	Qualitative
4.	Clay Bricks	Compressive strength	IS 3495 (Part 1): 1992 (RA 2007)	$5 \text{ N/} \text{mm}^2 \text{ to } 50 \text{ N/mm}^2$
		Water Absorption	IS 3495 (Part 2): 1992 (RA 2007)	1 % to 50 %
		Efflorescence	IS 3495 (Part 3): 1992 (RA 2007)	Qualitative
		Dimension Length Width Height	IS 3495: 1992 (RA 2007)	100 mm to 4800 mm 100 mm to 2500 mm 10 mm to 1500 mm

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 8 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
5.	Concrete	Compressive strength	IS 516: 1959 (RA 2008)	5 N/mm^2 to 80 N/mm^2
		Water permeability	DIN-1048 (Part 5)	2 mm to 30 mm
		Flexural Strength	IS 516: 1959 (RA 2008)	$1 \text{ N/mm}^2 \text{ to } 20 \text{ N/mm}^2$
6.	Cement Concrete Flooring Tile	Flatness of the tile surface	IS 1237: 2012	0.02 mm to 5 mm
		Perpendicularity	IS 1237: 2012	0.1 % to 3 %
		Straightness %	IS 1237: 2012	0.1 % to 3 %
		Water absorption %	IS 1237: 2012	1 % to 60 %
		Resistance to wear	IS 1237: 2012	0.1 mm to10 mm
		Dimension	IS 1237: 2012	1 mm to 300 mm
		Thickness of wearing layer	IS 1237 : 2012	0.01 mm to 20 mm
7.	Timber & Wood	Moisture content	IS 1708 (Part 1): 1986 (RA 2010)	1 % to 60 %
		Specific gravity	IS 1708 (Part 2): 1986 (RA 2010)	50 kg/m^3 to 1000 kg/m^3
8.	Flush Door Shutter	Glue adhesion	IS 4020 (Part 15): 1998	1 mm to 150 mm
	Shutter	Knife test	IS 4020 (Part 14): 1998	Qualitative
		End immersion test	IS 4020 (Part 13): 1998	Qualitative

Nagar, Industrial Area, New Delhi

Location 1: 4/9, Kirti Nagar, Industrial Area, New Delhi Location 2: 6/13, Kirti Nagar, Industrial Area, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 9 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
9.	Ply Wood	Dimension	IS 303: 1989 (RA 2003)	1 mm to 3000 mm
		Glue adhesion by Water resistance	IS 1734 (Part 5): 1983 (RA 2003)	Qualitative
		Glue Shear Strength	IS 1734 (Part 4): 1983 (RA 2003)	50 N to 2500 N
10.	Chequered Cement Concrete Tiles	Dimensions (Length, Breadth & Thickness)	IS 13801: 2013	1 mm to 400 mm
		Flatness of the Tile surface	IS 13801: 2013	0.05 mm to 5 mm
		Perpendicularity	IS 13801: 2013	0.1 % to 5 %
		Straightness	IS 13801: 2013	0.1 % to 5 %
		Water Absorption	IS 13801: 2013	1 % to 20 %
		Resistance to wear	IS 13801: 2013	0.01 mm to 10 mm
		Thickness of wearing layer	IS 13801: 2013	1 mm to 50 mm
III.	SOIL AND ROCK	TESTING		
1.	Soil	Moisture content	IS 2720 (Part 2): 1973 (RA 2010)	1 % to 50 %
		Specific gravity	IS 2720 (Part 3): 1980 (RA 2007)	0.01 g/cc to 5 g/cc

Nagar, Industrial Area, New Delhi

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Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 29.02.2016

Certificate Number T-1180 Valid Until 22.11.2016

Last Amended on - Page 10 of 10

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Soil	Light Compaction Test	IS 2720 (Part 7): 1980 (RA 2007)	0.1 g/cc to 4 g/cc 5 % to 20 %
		Heavy Compaction Test	IS 2720 (Part 8): 1983 (RA 2007)	0.1 g/cc to 4 g/cc 5 % to 20 %
		Grain size analysis	IS 2720 (Part 4): 1985 (RA 2010)	4.75 mm to75 micron
		Liquid limit	IS 2720 (Part 5): 1985 (RA 2010)	10 % to 60 %
		Plastic limit	IS 2720 (Part 5): 1985 (RA 2010)	1 % to 60 %