

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	1 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. MECHANICAL PROPERTIES OF MATERIALS				
1.	High Strength Deformed Bars	Mass Per Meter Run	IS 1786: 2008 IS 1608: 2005	0.1 to 10
		Tensile Strength	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Elongation	IS 1786: 2008 IS 1608: 2005	1 % to 30 %
		Yield Stress	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Bend Test	IS 1599: 2012	Qualitative Mandrel Dia. : (16, 20, 24, 30, 32, 36, 40, 48, 60, 64, 75, 80, 96, 100, 112, 125, 128, 144 & 160) mm
		Re Bend Test	IS 1786: 2008	Qualitative Mandrel Dia. : (32, 40, 50, 72, 84, 96, 112, 120, 140, 150 , 168, 175, 192 & 216) mm
2.	Hot Rolled Medium and High Tensile Structural Steel	Tensile Strength	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Yield Stress	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Elongation	IS 1786: 2008 IS 1608: 2005	1 % to 30 %
		Bend Test	IS 1599: 2012	Qualitative

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	2 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	Steel Tube & Steel Section for Structural Purposes	Tensile Strength	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Yield Stress	IS 1786: 2008 IS 1608: 2005	200 N/mm ² to 980 N/mm ² 2 N/mm ²
		Elongation	IS 1786: 2008 IS 1608: 2005	1 % to 30 %
		Flattening Test	IS 2328: 2005	Qualitative
		Crushing Test	IS 3601: 2006	Qualitative
II. BUILDING MATERIALS				
1.	Ordinary Portland Cement, Portland Slag Cement, PPC	Fineness by Dry Sieving	IS 4031 (Part 1): 1996 (RA 2009)	0.05 % to 100 %
		Fineness (Blaine)	IS 4031 (Part 2): 1999 (RA 2008)	50 m ² /kg to 700 m ² /kg
		Soundness by Le-Chatelier Method	IS 4031 (Part 3): 1988 (RA 2009)	0.5 mm to 15 mm
		Soundness by Autoclave Method	IS 4031 (Part 3): 1988 (RA 2009)	0.01 % to 4.5 %
		Consistency	IS 4031 (Part 4): 1988 (RA 2009)	10 % to 50 %
		Setting Time	IS 4031 (Part 5): 1988 (RA 2009)	5 min to 700 min
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2009)	10 MPa to 80 MPa
	Density	IS 4031 (Part 11): 1988	1.5 g/cc to 3.5 g/cc	

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	3 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	Bricks (Common Burnt Clay Building Bricks) (Fly Ash Brick)	Compressive Strength	IS 3495 (Part 1): 1992 (RA 2007)	3 MPa to 40 MPa
		Water Absorption	IS 3495 (Part 1): 1992 (RA 2007)	1 % to 50 %
		Dimension	IS 3495: 1992 (RA 2007) IS 12894: 2002	50 mm to 4000 mm
		Efflorescence	IS 3495 (Part 3): 1992 (RA 2007)	Qualitative
3.	Aggregates	Size and Grading	IS 2386 (Part 1): 1963 (RA 2007)	10 % to 100 %
		Finer Than 75 Micron	IS 2386 (Part 1): 1963 (RA 2007)	2 % to 50 %
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2007)	2 % to 100 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2007)	2 % to 100 %
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2007)	0.1 to 5.0
		Apparent Specific Gravity	IS 2386 (Part 3): 1963 (RA 2007)	0.2 to 5.0
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2007)	0.1 % to 50 %
		Aggregate Impact Value	IS 2386 (Part 4): 1963 (RA 2002)	10 % to 50 %
Aggregate Abrasion Value	IS 2386 (Part 4): 1963 (RA 2007)	Upto 80 %		

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	4 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Aggregates	Crushing Value	IS 2386 (Part 4): 1963 (RA 2007)	1.0 % to 60 %
		10% Fine Value	IS 2386 (Part 1): 1963 (RA 2007)	2 t to 50 t
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2007)	1.2 kg/m ³ to 2.0 kg/m ³
		Deleterious Material	IS 2386 (Part 2): 1963 (RA 2007)	0.1 to 50
		Organic Impurities	IS 2386 (Part 2): 1963	Qualitative
		Soundness (By Na ₂ SO ₄)	IS 2386 (Part 5): 1963 (RA 2002)	0.1 % to 15 %
		Soundness (By MgSO ₄)	IS 2386 (Part 5): 1963 (RA 2002)	0.1 % to 20 %
4.	Concrete Cube / Concrete Cylinder	Compressive Strength	IS 516: 1959 (RA 2004)	1 N/mm ² to 50 N/mm ²
		Water Permeability	DIN 1048 (Part 5) / MORTH	0.1 mm to 25 mm
5.	Precast Concrete Blocks Paving (Concrete Kerb Stone)	Dimensions	IS 15658: 2006 IS 5758: 1984	10 mm to 600 mm
		Thickness of Wearing Layer	IS 15658: 2006	0 to 25 mm
		Water Absorption	IS 15658 : 2006 IS 5758: 1984	1 % to 40 %
		Compressive Strength	IS 15658 : 2006 IS 5758: 1984	10 MPa to 80 MPa

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	5 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
6.	Unglazed Ceramic Vitreous Acid Resistance Tiles	Dimension		
		Length, Width & Thickness	IS 4457: 2007 Annexure B	1 mm to 1000 mm
		Physical Properties		
		Water Absorption	IS 4457: 2007 Annexure C	0.1 % to 10 %
		Chemical Properties		
		Resistance to Chemicals	IS 4457: 2007 Annexure F	Qualitative
7.	Roofing Slate Tiles	Physical Properties		
		Water Absorption	IS 6250: 1981 Appendix A	0.1 % to 25 %
8.	Pressed Ceramic Tiles	Dimension and Surface Quality		
		Length, Width & Thickness	IS 13630 (Part 1): 2006	1 mm to 1000 mm
		Physical Properties		
		Water Absorption	IS 13630 (Part 2): 2006	0.1 % to 25 %
		Scratch Hardness of Surface (Mohs)	IS 13630 (Part 13): 2006	1 Mohs to 7 Mohs
		Crazing Resistance	IS 13630 (Part 9): 2006	Qualitative
Chemical Properties				
	Resistance to Staining of Glazed Tiles	IS 13630 (Part 8): 2006	Qualitative	

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	6 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Pressed Ceramic Tiles	Resistance to Household Chemicals & Swimming Pool Waters Cleansers Except to Cleansing Agents Containing Hydrofluoric Acid and Its Compounds	IS 13630 (Part 8): 2006	Qualitative
		Resistance to Acids and Alkalis (With the Exceptions of Hydrofluoric Acid and Its Compounds)	IS 13630 (Part 8): 2006	Qualitative
9.	Cement Concrete Flooring Tiles	Physical Requirements		
		Flatness of the Tile Surface	IS 1237: 2012 Annexure B	0.01 mm to 2 mm
		Perpendicularity	IS 1237: 2012 Annexure C	0.01 % to 2 %
		Straightness	IS 1237: 2012 Annexure D	0.01 % to 2 %
		Water Absorption	IS 1237: 2012 Annexure E	0.2 % to 15 %
		Wet Transverse Strength	IS 1237: 2012 Annexure F	1 N/mm ² to 10 N/mm ²
		Resistance to Wear	IS 1237: 2012 Annexure G	0.1 mm to 5 mm
10.	Bitumen	Specific Gravity	IS 1202: 1978	0.2 to 1.2
		Softening Point	IS 1205: 1978	(30 °C to 90 °C)/ 1.0 °C

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	7 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
11.	Bentonite (Drilling Mud for Design Construction of Pile Foundation)	Liquid Limit	IS 2720 (Part 5): 1985 (RA 2007) IS 6186: 1986 (RA 2003)	150 % to 600 %
		Sand Content	IS 6186: 1986 (RA 2003)	0.1 % to 10 %
		Swelling Power	IS 6186: 1986 (RA 2003) Clause A-5	Qualitative
		Gel Formation Index	IS 6186: 1986 Clause A-5	Qualitative
		Fineness	IS 6186: 1986 Clause A-6	1 % to 100 %
		Density	IS 2911 (Part 1/Sec II): 2010	1.00 g/ml to 1.10 g/ml
		Liquid Limit	IS 2720 (Part 5): 1985	300 % to 600 %
		Density of Bentonite Suspension	IS 2911 (Part 1/Sec II): 2010	1.0 to 1.2
		Marsh Viscosity	IS 2911 (Part 1/Sec II): 2010 ASTM D6910: 2009	20 Stoke to 100 Stoke
		pH	IS 2911 (Part 1/Sec II): 2010	8 to 12
12.	Integral Waterproofing Compounds	Setting Time	IS 4031 (Part 5): 1988	70 % to 95 % of control sample
		Compressive Strength	IS 4031 (Part 6): 1988	70 % to 95.5 % of control sample
13.	Silica Fume / Micro Silica	Oversize Percent Retained on 45 Micron IS Sieve	IS 1727: 1967	1 % to 12 %
		Compressive Strength at 7 Days	IS 1727: 1967	80 % to 98 % of control Sample

**Sumit Sundriyal
Convenor**

**N. Venkateswaran
Program Manager**

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	8 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
14.	Fly Ash	Fineness (Specific Surface) by Blaine's Air Permeability Method	IS 1727: 1967 (RA 2008)	50 m ² /kg to 800 m ² /kg
		Soundness by Autoclave Expansion	IS 1727: 1967 (RA 2008)	0.01 % to 0.8 %
		Particle Retained on 45 Micron Sieve (Wet Sieving)	IS 1727: 1967 (RA 2008) ASTM C-430	0.05 % to 100 %
		Compressive Strength (Percent of the Strength of Corresponding Plain Cement Mortar Cube)	IS 1727: 1967 (RA 2008)	50 % to 100 %
		Specific Gravity	IS 1727: 1967 (RA 2008)	2.00 to 2.80
III. PLASTICS, RUBBER AND LEATHER				
1. a.	Plastic UPVC Pipes & Films/ HDPE/ LDPE	Dimension	IS 12235 (Part 1): 2004 IS 4984: 1995 (RA 2002) Amd.5	Outer dia.10 mm to 315 mm Thickness: 0.1 mm to 10 mm
		Reversion Test	IS 12235 (Part 5): 2004	1.0 % to 6 %`
		Tensile Strength	IS 13360 (Part 5/ Sec II): 1996 IS 13360 (Part 5/ Sec III): 1999 IS 12818: 2010 IS 2508: 1984 (RA 2003)	0.5 MPa to 98 MPa

Laboratory **Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana**

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

Discipline **Mechanical Testing** **Issue Date** **07.06.2015**

Certificate Number **T-2558** **Valid Until** **31.05.2017**

Last Amended on **-** **Page** **9 of 19**

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	UPVC Pipes & Films/ HDPE/ LDPE	Elongation	IS 13360 (Part 5/ Sec II): 1996 IS 13360 (Part 5/ Sec III): 1999 IS 2508: 1984 (RA 2003) Amd.1, 2, 3	1 % to 60 %
		Density	IS 7328: 1992 (RA 2003) Amd.1	0.5 g/cc to 2.5 g/cc
		Visual Appearance	IS 4984: 1995 (RA 2008) Amd.5 IS 4985: 2000 Amd. 3 IS 2508: 1984 (RA 2003) Amd.1, 2, 3	Qualitative
		Fusion Compatibility Test	IS 14151 (Part 1): 1999 (RA 2004) Amd.1,2,3	Qualitative
		Leakage Test	IS 14151: 1999 Amd.3 (RA 2004)	Qualitative
		Weld Ability Test on Fused Pipe	IS 14151: 1999 (RA 2004) Amd.3	Qualitative
		Specific Gravity	IS 12235 (Part 14): 2004 IS 7328: 1992 (RA 2003) Amd.1	0.5 to 2.5
		Test for Internal Dia	IS 12818: 2010	20 mm to 250 mm
b.	HDPE Sack	Mass	IS 1964: 2001	50 g to 5000 g
		Capacity	IS 14887: 2000 (RA 2006) Amd.1 IS 14968: 2001 (RA 2006) IS 9755: 2003	0.5 kg to 100 kg

Sumit Sundriyal
Convenor

N. Venkateswaran
Program Manager

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	10 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	HDPE Sack	Dimension	IS 1954: 1990 (RA 2002)	5 kg to 150 cm
		Ends/Dm	IS 14887: 2000 (RA 2006) Amd.1 IS 14968: 2001 (RA 2006) Amd.1, 2	1 to 50
		Picks/Dm	IS 14887: 2000 (RA 2006) Amd.1 IS 14968: 2001 (RA 2006) Amd.1, 2	1 to 50
		Breaking Strength	IS 1969: 1985 (RA 1999)	1 kg to 500 kg
		Elongation at Break	IS 1969: 1985 (RA 1999) Amd.1	1% to 200 %
c.		PVC Water Stop	Tensile Strength	IS 13360 (Part 5/Sec II): 1996 IS 13360 (Part 5/Sec III): 1999
	Elongation		IS 13360 (Part 5/Sec II & III): 1996 (RA 2003)	1 % to 200 %
	Hardness-Shore A		IS 13360 (Part 5/Sec XI): 1992 (RA 2003)	35 to 95
	Water Absorption Accelerated Extraction		IS 15058: 2002 (RA 2008)	0.01 to 5 %
	Stability in Effect of Alkali (7 Days)			
	Weight Increase/ Decrease		IS 15058: 2002 (RA 2008)	0.01 % to 5 %
	Change in Hardness		IS 15058: 2002 (RA 2008)	35 to 95

Sumit Sundriyal
Convenor

N. Venkateswaran
Program Manager

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	11 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Water Stop	Stability in Effect of Alkali (28 Days)		
		Weight Increase/ Decrease	IS 15068: 2001 (RA 2001)	0.01 % to 5 %
		Change in Hardness	IS 15058: 2002	35 to 95
		Dimension Change Width Thickness	IS 15058: 2002	Upto 300 mm
d.	Container for Packaged Drinking Water/Packaged Mineral Water With Cap	Workmanship, Appearance, Finish etc.	IS 15058: 2003 Amd. 2 Clause. 4.3	Qualitative
		Capacity, ml or gm Nominal /Brimful	IS 2798: 1998 (RA 2003)	1 ml to 1000 ml 250 g to 60 kg
		Wall Thickness, Mm Top Middle Bottom	IS 2798: 1998 (RA 2003)	Upto 25 mm
		Drop Test	IS 2798: 1998 (RA 2003)	Qualitative
		Migration Test (40 ± 2°C at 10 Days), mg/dm ² for mg/l	IS 9845: 1998	1 mg/dm ² to 200 mg/dm ²
		Water Potability Test (38±2 °C for 30 Days)	IS 3025 (Part 5): 1983 IS 3025 (Part 8): 1984	Smell and Taste
e.	LLDPE Water Tank	Gross Capacity	IS 12701: 1996	200 l to 20000 l
		Weight	IS 12701: 1996	5 kg to 30 kg
		Resistance to Deformation	IS 12701: 1996	0 to 5 %
		Test for Top Load Resistance	IS 12701: 1996	Qualitative

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	12 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
f.	Plastics Feeding Bottles	Capacity	IS 14625: 1999	1 ml to 500 ml
		Wall Thickness	IS 2798: 1998 (RA 2003)	1 mm to 5 mm
		Leakage Test	IS 14625: 1999	Qualitative
g.	HDPE Containers for Pesticides	Dimension and Tolerances	IS 9754: 1981 (RA 2003) Appendix B,C,D & E	1 mm to 500mm
		Capacity	IS 9754: 1981 (RA 2003)	0.1 l to 1 l
		Leakage Test	IS 9754: 1981 (RA 2003)	Qualitative
		Stress Crack Resistance Test	IS 8747: 1977 (RA 2004)	Qualitative
		Drop Test	IS 9754: 1981 (RA 2003) Appendix F	Qualitative
		Ink Adhesion	IS 9754: 1981 (RA 2003) Appendix G	Qualitative
2.	Rubber			
a.	EPDM Rubber and other Rubber Allied Products	Dimensions	(As per ASTM D-1204) / As per drawing	Vernier: Upto 150 L.C.: 0.02 mm Micrometer: Upto 25 mm L.C.: 0.01 mm
		Hardness	ASTM D-2240: 05	Upto 100 Shore A
		Specific Gravity	IS 3400 (Part 9): 2003	0.001 to 1.5
		Compression Set	IS 3400 (Part 10): 1977 (RA 2003)	50 %

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	13 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
b.	Rubber Sealing Ring	Finish	IS 5382: 1985 (RA 2003)	Qualitative
		Stretch on Ring	IS 5382: 1985 (RA 2003)	Qualitative
		Tensile Strength	IS 3400 (Part 1): 2012	1 MPa to 50 MPa
		Elongation	IS 3400 (Part 1): 2012	1 % to 500 %
		Compression SET	IS 3400 (Part 10): 1977 (RA 2003)	0.1 % to 50 %
		Water Absorption	IS 5382: 1985 (RA 2003) Appendix C	0.1 % to 10 %
		Water Immersion	IS 3400 (Part 6): 2012	Qualitative
		Change in Volume	IS 3400 (Part 6): 2012	0.1 % to 10 %
		Splice Strength	IS 5382: 1985(RA 2003) Appendix B	1 % to 200 %
		Accelerated Ageing Properties	IS 3400 (Part 4): 2012	Qualitative
		Change in Tensile Strength	IS 3400 (Part 1): 2012	0 to 30 %
		Change in Elongation	IS 3400 (Part 1): 2012	0 to 300
c.	Rubber Gasket for Pressure Cooker	Tensile Strength	IS 7466: 1994 (RA 2003)	0.98 MPa to 2.9 MPa
		Elongation	IS 7466: 1994 (RA 2003)	1 % to 500 %
		Tensile Strength after Ageing at 100 °C for 3-Days	IS 3400 (Part 4): 2012	0.98 MPa to 2.9 MPa
		Elongation after Ageing at 100 °C for 3-Days	IS 3400 (Part 4): 2012	1 % to 500 %

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	14 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Rubber Gasket for Pressure Cooker	Compression Set	IS 3400 (Part 10): 1977 (RA 2003)	0 to 40 %
d.	Rubber Flooring Materials for General Purpose	Dimensions	IS 809: 1992 (RA 2006)	1 mm to 5000 mm
		Width of Sheet Applicable on Roll	IS 809: 1992 (RA 2006)	0.1 mm to 5000 mm
		Water Absorption	IS 5382: 1985 (RA 2003) Appendix C	0 to 2 %
		Compression SET	IS 3400 (Part 10): 1977 (RA 2003)	0 to 100 %
e.	General Purpose Rubber Water Hose	Dimension	IS 444: 1987 (RA 2003) IS 443: 1975 (RA 2001)	10 mm to 100 mm
		Tensile Strength	IS 443: 1975 (RA 2001)	0.1 MPa to 10 MPa
		Elongation at Break of Lining and Cover	IS 443: 1975 (RA 2001)	1 % to 500 %
		Accelerated Ageing Test	IS 443: 1975 (RA 2001)	0.01 % to 20 %
		Swelling Test Change in Volume	IS 3400 (Part 6): 2012	1 % to 100 %
		Adhesion Strength	IS 3400 (Part 5): 1986 (RA 2003)	1.5 N/m to 1000 N/m
	Hydraulic Pressure	IS 443: 1975 (RA 2001)	Upto 4 MPa (at 15 s to 30 s) & Above 4 and Upto 14 MPa (at 30 s to 60 s)	

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	15 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
f.	Rubber Hose	Dimension and Tolerances	IS 9573: 2012 (RA 2003)	1 mm to 5 m
		Tensile Strength	IS 443: 1975 (RA 2001)	0.1 N/m to 10 N/m
		Elongation	IS 443: 1975 (RA 2001)	10 % to 500 %
		Accelerated Ageing Test	IS 443: 1975 (RA 2001)	0.1 % to 100 %
		Resistance of Lining to N-Pentane	IS 9573: 2012	0 to 100 %
		Adhesion	IS 3400 (Part 5): 1986 (RA 2003)	Qualitative
		Flexibility of Hose	IS 9573: 2012	Qualitative
		Burning Behavior	IS 9573: 2012	Qualitative
		Proof Pressure Test		
		Leakage @2 mpa	IS 443: 1975 (RA 2001)	Qualitative
		Change in Dimension	IS 443: 1975 (RA 2001)	Upto 12
		Bursting Pressure	IS 443: 1975 (RA 2001)	Qualitative
		Thickness of Lining and Cover	IS 443: 1975 (RA 2001)	1 mm to 5.0 mm
IV. SOIL & ROCK				
1.	Soil	Water Content	IS 2720 (Part 2): 1973	0.5 % to 20 %
		Grain Size Analysis	IS 2720 (Part 4): 1985	0.1 % to 100 %

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	16 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Soil	Atterberg's Limits (Liquid Limit, Plastic Limit & Plastic Index)	IS 2720 (Part 5): 1985	5 % to 60 %
		Proctor Density (MDD/OMC)	IS 2720 (Part 7 & 8): 1980 & 1983	0.1 g/cc to 4 g/cc
		CBR Test	IS 2720 (Part 16): 1987 (RA 2007)	0.05 % to 100 %
		Dry Density by Core Cutter Method	IS 2720 (Part 29): 1975	1 g/cc to 3 g/cc
		Dry Density by Sand Replacement Method	IS 2720 (Part 28): 1974	1 g/cc to 3 g/cc
		Bulk Density	AAL/SOP/ENV/010I	1 g/cc to 3 g/cc
2.	Stones (Granite, Marble, Slate Stone, Quartz Base Stone, Sand Stone, Dholpur Stone, Kota Stone)	Moh's Hardness (Scratch Hardness)	IS 13630 (Part 13): 2006	1 to 9
		Resistance to Wear	IS 1706: 1972 (RA 2008)	0.5 mm to 50 mm
		Water Absorption	IS 1124: 1974 (RA 2008)	0.01 % to 10 %
		Apparent Porosity	IS 1124: 1974 (RA 2008)	0.01 % to 10 %
		Specific Gravity	IS 1122: 1974 (RA 2008)	1 to 3.5
		Compressive Strength	IS 1121 (Part 1): 2013	20 MPa to 100 MPa

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	17 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
V.	PERFORMANCE TEST			
1.	Domestic Gas Stove & Pressure Cooker			
a.	Domestic Gas Stove for Use With L.P.G.	Performance Test		
		General	IS 4246: 2002 Clause. 4, IS 5116 & Clause. 4.1.1	Qualitative
		Materials	IS 5116: 1996 Clause. 5 Annexure B, C & D	Qualitative
		Design for Maintenance	IS 4246: 2002 Clause. 6.1 to 6.6	Qualitative
		Workmanship & Finish	IS 5116: 1996 Clause. 7 & IS 4246: 2002 Clause. 8.2 & 8.3	Qualitative
		Gas Tap	IS 5116: 1996 Clause. 8	Qualitative
		Injector Jets	IS 5116: 1996 Clause. 9	Qualitative
		Burners	IS 5116: 1996 Clause. 10 & IS 4246: 2002 Clause. 11.2 & 11.3	Qualitative
		Burner Pan Supports	IS 4246: 2002 Clause. 12.1.1	Qualitative
		Gas Soundness	IS 5116: 1996 Clause. 16	Qualitative
		Gas Inlet Connection	IS 5116: 1996 Clause. 18 & IS 4246: 2002 Clause. 14.2	Qualitative

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	18 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Domestic Gas Stove for Use With L.P.G.	Strength Rigidity	IS 4246: 2002 Clause. 15	Qualitative
		Gas Consumption	IS 4246: 2002 Clause. 17	1 l/h to 60 l/h
		Ignition & Flame	IS 4246: 2002 Clause. 18.1. & 18.2	Qualitative
		Flame Stability	IS 4246: 2002 Clause. 19.1 & 19.1.1	Qualitative
		Noise Control	IS 4246: 2002 Clause. 20	Qualitative
		Flash Back	IS 4246: 2002 Clause. 21	Qualitative
		Formation of Soot	IS 4246: 2002 Clause. 22	Qualitative
		Resistance to Drought	IS 4246: 2002 Clause. 23	Qualitative
		Combustion	IS 4246: 2002 Clause. 24	0.001 to 2.0
		Fire Hazard & Limiting Temperature	IS 4246: 2002 Clause. 25.1 & 25.2 IS 5116: 1996 Clause. 23.6	1 °C to 1200 °C
	Thermal Efficiency	IS 4246: 2002 Clause. 26 IS 4246: 2002 Annexure F	0.5 % to 10 %	
b.	Domestic Pressure Cooker	Capacity Test	IS 2347: 2006 Clause. 4 IS 2347: 2006 Annexure B	1 l to 22 l
		Fusible Plugs	IS 2347: 2006 Clause. 5.2	0.2 kg/cm ² to 4 kg/cm ²
		Pressure Regulating Device	IS 2347: 2006 Clause. 5.5	Qualitative

Laboratory	Arihant Analytical Laboratory Pvt. Ltd., Plot No. 272, Sector-57, Phase-IV, HSIIDC, Kundli, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	07.06.2015
Certificate Number	T-2558	Valid Until	31.05.2017
Last Amended on	-	Page	19 of 19

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Domestic Pressure Cooker	Vent Pipe	IS 2347: 2006 Clause. 5.7	Qualitative
		Spring	IS 2347: 2006 Clause. 5.8	Qualitative
		Vent Pipe Nut	IS 2347: 2006 Clause. 5.9	Qualitative
		Pressure Regulating Device	IS 2347: 2006 Clause. 6.1	Qualitative
		Safety Pressure Relief Device	IS 2347: 2006 Clause. 6.2.1	Qualitative
		Workmanship & Finish	IS 2347: 2006 Clause. 7.1 & 7.2	Qualitative
		Air Pressure Test	IS 2347: 2006 Clause. 8.1	0.02 kg/cm ² to 1 kg/cm ²
		Proof Pressure Test	IS 2347: 2006 Clause. 8.2 IS 2347: 2006 Annexure E	0.2 kg/cm ² to 2 kg/cm ²
		Operating Test for Pressure Regulating Device	IS 2347: 2006 Clause. 8.3 IS 2347: 2006 Annexure F	0.05 kg/cm ² to 2 kg/cm ²
		Test for Safety Pressure Relief Device	IS 2347: 2006 Clause. 8.4 IS 2347: 2006 Annexure F IS 2347: 2006 Annexure G	0.02 kg/cm ² to 3 kg/cm ²
		Bursting Pressure Test	IS 2347: 2006 Clause. 8.5 IS 2347: 2006 Annexure H	0.2 kg/cm ² to 4 kg/cm ²
	Test for Removal of Lid Under Pressure	IS 2347: 2006 Clause. 8.6	0.02 kg/cm ² to 1 kg/cm ²	

-X-X-X-X-X-X-X-X-X-X-X-X-

NOTE: The Laboratory has demonstrated competence for the stated scope for **WATER**. This however does not fully cover the specification requirements of **BIS for the Packaged Drinking Water as per IS 14543 and the Packaged Natural Mineral Water IS 13428**.