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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		CHEMICAL TESTING		
I.	**PLASTIC & RESINS**			
1.	**UPVC Pipe for Portable Water Supplies**	Reversion test	IS 12235 (Part 5): 2004	-5 % to +5 %
		Sulphated ash content	IS 4985:2000	0.5 % to 11 %
		k-value	IS 4669:1968 (RA 2003)	11-80
		Effect on water	IS 12235 (Part 4): 2004	2.16 x 10^{-10} kg/l to 3.0 kg/l
2.	**UPVC Screen & Casing Pipe for Bore/Tube Well**	k-value	IS 4669:1968 (RA 2003)	11-80
		Effect on water	IS 12235 (Part 4): 2004	2.16 x 10^{-10} kg/l to 3.0 kg/l
3.	**UPVC Pipe for Soil & Waste Discharge System Inside Building Including Ventilation & Rain Water System**	reversion	IS 12235 (Part 5): 2004	-5 % to +5 %
		resistance to sulphuric acid	IS 12235 (Part 7): 2004	-0.13 g to +0.32 g
		Resistance to dichloromethane at specific temperature	IS 12235 (Part 11): 2004	Qualitative
4.	**High Density PE Pipes for Portable Water Supplies**	Longitudinal reversion test	IS 4984:2016	0.01 % to 3 %
		Overall migration	IS 9845:1998 (RA 2015)	0.01 mg/l to 60 mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Carbon black content	IS 2530:1963 (RA 2013)	0.1 % to 3 %
		Carbon black dispersion	IS 2530:1963 (RA 2013)	Qualitative
5.	**Low Density Polyethylene Films**	Carbon black content	IS 2530:1963 (RA 2013)	0.1 % to 3 %
		Carbon black dispersion	IS 2530:1963 (RA 2013)	Qualitative
		Ash content	IS 13360 (Part 8/Sec-8)	0.01 % to 90 %
6.	**Permanently**	Reversion	IS 4984:2016	0.01 % to 3 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Lubricated HDPE Telecom Ducts for Use as Underground Optical Fibre Cable Conduits	Ash content	GR/CDS08/02.NOV2004 OF DOT SPECN.2004	0.01 % to 90 %
7.	**Rotational Moulded Polyethylene Water Storage Tanks**	**Identification**		
		Melting point	IS 13360 (Part 6) Method B, sec-10-92 (RA 2003)	0.5 % to11 %
		Ash content	ISO 3451-I (Part 1) Method A	0.1 % to 3 %
		Carbon black content	IS 2530:1963 (RA 2013)	
		Carbon black dispersion	IS 2530:1963 (RA 2013)	Qualitative
		Overall migration test	IS 9845:1998 (RA 2015) Clause6, Method II	0.01 mg/l to 60 mg/l 0.01 mg/dm^2 to 10 mg/dm^2
8.	**Injection Moulded PVC Fitting with Solvent Cement Joints for Water Supplies**	Effect on water	IS 7834:1987	2.16X10^{-10} kg/l to 3.0 kg/l
9.	**Solvent cement for use with Unplasticised Polyvinyl Chloride Plastic Pipe & Fitting**	Dissolution	IS 14182:1994 (RA 2005)	Quantitative
		Viscosity	IS 14182:1994 (RA 2005)	90 m.Pa.S to 1600 m.Pa.S
		Effect on water	IS 12235 (Part 4): 2004	2.16X10^{-10} kg/l to 3.0 kg/l
10.	**UPVC Pipes (Duct) & Fittings for Underground**	Reversion	IS 12235 (Part 5): 2004	0.01% to -3%
		Resistance to chemical action	IS 14787:2000	-0.1 % by mass to +0.1 % by mass

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Telecommunication Cable Installation	Ash content	IS 14787:2000	0.01% to 90 %
11.	**UPVC injection moulded fittings for soil waste discharge system for inside & outside buildings Including Ventilation & Rain Water System**	Resistance to sulphuric acid	IS 12235 (Part 7): 2004	-0.13 g to +0.32 g
		Sulphated ash content	IS 14735:1999	0.01 % to 90 %
12.	**Containers for packaging of natural mineral water & packaged drinking water**	Migration test	IS 9845:1998 (RA 2015)	0.01 mg/l to 60 mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Water portability test (odour)	IS 15410:2003 IS 3025 (Part 5): 1983 IS 3025 (Part 8): 1984 Annex B	Quantitative
13.	**Block boards**	Spot test	IS1659:2004	Quantitative
14.	**Resin for upvc Pipes (Duct) & Fittings for Underground Telecommunication Cable Installation**	K-value	IS 4669:1968 (RA 2003)	11 to 80
15.	**Polymer**	**Identification**		
		Melting point	IS 13360 (Part 6) (RA 2003) Method B, sec-10-92	1 °C to 600 °C
		Ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
16.	**Textiles-HDPE/PP Woven Sacks for Packing of Good Grains**	Ash content	IS14887:2014	0.01 % to 75 %
17.	**Textiles-HDPE/PP Woven Sacks for Packing of 10kg, 15 kg, 20 kg, 25 kg, 30 kg food Grains**	Ash content	IS16208:2015	0.01 % to 75 %
18.	**Textiles-HDPE/ PP Woven Sacks for Packaging of 50kg/25kg sugar**	overall migration	IS 10146:1982	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		ash content	IS 14968:2015	0.01 % to 90 %
19.	**Textiles- HDPE/PP Woven sacks for Filling Sand**	overall migration	IS 10146:1982	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		ash content	IS 14252:2015	0.01% to 90%
20.	**Textiles-high Density PE/HDPE Polypropylene Woven Sacks for Packing Fertilizers**	**Identification**		
		melting point	IS 13360(Pt.6)Sec-10-92 (RA-2003) Method B	1^0C to 600^0C
		ash content	ISO 3451-I(part-1)method AIS-9755:2016	0.5%to11%
21.	**High density PE Film**	**identification**		
		melting point	IS 13360 (Part 6) (RA 2003) Sec-10-92 Method B	1 °C to 600 °C
		ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %
		carbon black content	IS 2530-1963 (RA 2013)	0.1%to3%
		Carbon Black Dispersion	IS 2530-1963 (RA 2013)	Qualitative
22.	**Mono Axially**	**Identification**		

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Oriented PP Tape	melting point	IS 13360 (Part 6) (RA 2003) Sec-10-92 Method B	1 °C to 600 °C
		ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %
23.	**Product Jute Bags for Packing 50kg Food Grains**	oil content on dry deoiled material basis,%	IS 2969:1974	0.01 % to 100 %
24.	**Product Irrigation Equipment Polyethylene Pipes for Irrigation Laterals**	toluene extract	IS 12786:1989	0.01 % to 100 %
		maximum volatile content	IS 12786:1989	0.5 % to 11 %
		carbon black content	IS 2530:1963 (RA 2013)	0.1 % to 3 %
		carbon black dispersion	IS 2530:1963 (RA 2013)	Qualitative
		Reversion test	IS12786-1989	50 % to +50 %
		ESCR	IS 12786:1989	Qualitative
25.	**Product HDPE Pipes for Sewerage**	Carbon black content	IS 2530:1963 (RA 2013)	0.1 % to 3 %
		Carbon black dispersion	IS 2530:1963 (RA 2013)	Qualitative
		Reversion test	IS 12235 (Part 5): 2004	-50 % to +50 %
26.	**Product Jute Bags for Packing 50kg Sugar**	**Material identification of liner**		
		Melting point	IS 13360 (Part 6) Sec-10-92 (RA 2003) Method B	1 °C to 600 °C
		Ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %
		Food grade requirement of liner (overall migration)	IS 9845:1998 (RA 2015)	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
27.	**Product Polypropylene Random Copolymer Pipes for Hot & Cold Water Supplies**	Influence on water intended for human consumption (overall migration)	IS 9845:1998 (RA 2015)	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Reversion	IS 12235(Part 5): 2004	-50 % to +50 %
		Carbon black content	IS 2530-1963(RA 2013)	0.1 % to 3 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Carbon black dispersion	IS 2530 1963 (RA 2013)	Qualitative
28.	**PE Pouches for Packaging of Natural Mineral Water & Packaged Drinking Water**	Food grade requirement (overall migration)	IS 9845:1998 (RA 2015)	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Overall migration	IS 9845:1998 (RA 2015)	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Water portability test	IS:15609:2005	Qualitative
29.	**HDPE Crates for Milk Sachets**	**Material identification**		
		Melting point	IS 13360 (Part 6) (RA 2003) Sec-10-92 Method B	1 °C to 600 °C
		Ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %
30.	**Jute Bags for Packing Sugar**	Oil content on dry oiled material basis	IS 12493:1988	0.01 % to 100 %
31.	**PE Lined Jute Bags for Packing Tea**	**Material Identification of Liner & Twine Identification**		
		Melting point	IS 13360 (Part 6) (RA 2003) Sec-10-92 Method B	1 °C to 600 °C
		Ash content	ISO 3451-I (Part 1) Method A	0.5 % to 11 %
		Food grade requirement of liner(overall migration)	IS 9845:1998 (RA 2015)	0.01 mg/l to 60mg/l 0.01 mg/dm^2 to 10 mg/dm^2
		Oil content on dry deoiled material basis	IS 13649:1993	0.01% to 100 %
32.	**Black**	Ash content	IS 2508:2016	0.5 % to 11 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Compounded for Low Density Polyethylene Films	Carbon black content	IS 2530:1963 (RA 2013)	0.1 % to 3 %
33.	**Textiles- High Density Polyethylene (HDPE)/ Packing Cement/ Polypropylene**	Ash content	IS 11652:2017	0.5 % to 11 %

MECHANICAL TESTING

I.	**PLASTIC & PLASTIC PRODUCTS**			
1.	**UPVC Pipe for Potable Water Supplies**	dimension	IS-4985-2000	20 mm to 630 mm
		pipe ends	IS-4985-2000	Qualitative
		visual appearance	IS-4985-2000	Qualitative
		opacity	IS-12235-2004(PT.3)	0.00 to 100 %
		Vicat softening temperature	IS-12235-2004(PT.2)	25 °C to 3000 °C
		density	IS-122352004(PT.14)	0.1 g/cc to 2.0g/cc
		hydraulic characteristics(acceptance & type)	IS-12235-2004(PT.8)	0 to 140 kg/cm^2
		resistance to external blow at 0 °C	IS-4985-2000	0.25 kg to1.00 kg
2.	**UPVC Screen & Casing Pipe for Bore/Tube Well**	colour	IS-12818-2010	Qualitative
		dimension	IS-12235:2004(PT-1)	35 mm to 400 mm
		visual appearance	IS-12818-2010	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		mean internal diameter at mid-point of socket length	IS-12818-2010	33 mm to 390 mm
		density	IS-12235-2004(PT.14)	0.1 g/cc to2.0 g/cc
		resistance to external blows at 0^0C	IS-12235-2004(PT.9)	0.50 kg to 6.3 kg
		tensile strength	IS-12235-2004(PT-13)	1 MPa to100 MPa
		Vicat softening temperature	IS-12235-2004(PT-2)	25 °C to 300 °C
		Thread checking	IS-12818-2010/IS-554	40 mm to 400 mm
		Hardness of sealing element (Shore-A)	IS-12818-2010	1to100
3.	**UPVC Pipe for Soil & Waste Discharge System for Inside & Outside Buildings Including Ventilation & Rain Water System**	Colour of pipe	IS-13592-2013	Qualitative
		Dimension of pipe	IS-12235(PT-1)	40 mm to 315 mm
		Dimension of socket	IS-13592-2013	40 mm to 315 mm
		Visual appearance	IS-13592-2013	Qualitative
		Stress relief test	IS-12235-2004(PT-6)	Qualitative
		Vicat softening temperature	IS-12235-2004(PT 2)	25 °C to 300 °C
		Effect on sunlight	IS-12235-20049(PT-13)	1 MPa to100 MPa
		Resistance to external blow at 0 °C	IS-12235-2004(PT 9)	Qualitative
		Tensile strength	IS12235:2004(PT-13)	1 MPa to100 MPa
		Axial shrinkage	IS-13592:2013	0.01 % to 100 %
		Water tightness of joint	IS-13592-2013	Qualitative
4.	**High Density PE Pipes for Potable Water Supplies**	Dimension	IS-4984-2016	16 mm to 710 mm
		Visual appearance		Qualitative
		Hydraulic characteristics		0 to 140 kg/cm^2
		Melt flow index	IS-2530-1963	0.10 g/10 min to 25 g/10min
		Density	IS-7328-1992	0.5 g/cc to 2.0 g/cc

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tensile strengthfor butt fusion	IS-4984-2016	1 MPa to100 MPa
		Elongation at break		1 % to 1000 %
		Slow crack growth rate		0 to140 kg/cm^2
5.	**Low Density Polyethylene Films**	Density	IS-2508-2016	0.5 g/cc to 2.0g/cc
		Melt flow index	IS-2508-2016	0.10 g/10min to 25 g/10min
		Dimensional requirement	IS-2508-2018	0.01 µm to1000µm
		Visual appearance	IS-2508-2016	Qualitative
		Tensile strength elongation at break	IS13360(Pt-5/SEC-1)&Pt-5/sec 3)	1 MPa to 100 Mpa 1 % to 1000 %
		Tear resistance	IS -2508-2016	1 N to 5000 N
		Tensile strength after ageing test	IS-13360(Part 5/sec1,& part 5/sec3)	1 MPa to100 MPa
		Impact resistance	IS-2508-2016	5 gf to 2000 gf
		Puncture resistance	IS-2508-2016	1 N to 5000 N
6.	**Permanently lubricated HDPE Telecom Ducts for Use as Underground Optical Fibre Cable Conduits**	Dimension	GR/CDS-08/02.Nov2004	32/26mm, 40/33mm, 50/42mm
		Visual appearance		Qualitative
		Color		Qualitative
		Hydraulic characteristics (acceptance & type test)	IS-4984-2016	Qualitative
		Tensile strength at yield elongation at break	ASTMD 638:2003	1 MPa to 100 MPa 1 % to 1000 %
		Flexural modulus		1 MPa to 100 MPa
		Hardness (shore-D)		1 to 100
		Heat deflection temperature	ASTMD 790:2003	25 °C to 300 °C
		Weathering in artificial	ASTMD 2240:2000	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		light		
		ESCR	ASTMD 648:2004	Qualitative
		Impact strength	GR/CDS-08/02.Nov2004 ASTMD 1693:2001	Qualitative
		Crush resistance	IS-12235-2004(PT.9)GR/CDS-08/02.Nov2004	Qualitative
		Mandrel test		Qualitative
		Ovality test		0.01 mm to 2 mm
		Fading of color	ASTMD 1712:2003	Qualitative
		Coil set	GR/CDS:08/02Nov2004	Qualitative
		Internal co-efficient of friction		0.1 N to 100 N
		Density	IS-2530-63 IS 7328	0.5 g/cc to 2.0 g/cc
		MFR	IS 2530-1963	0.10 g/10min to 25g/10min
7.	**Injection Moulded PVC Fitting with Solvent Cement Joints for Water Supplies**	dimension	IS:12235(PT-1)	20 mm to 315 mm
		opacity	IS 7834:1987	0 to 100 %
		short term hydraulic test	IS:7834:1987	0 to 140kg/cm^2
		stress relief test	IS-7834:1987	Qualitative
8.	**Solvent Cement for Use with Unplasticised Polyvinylchloride Plastic Pipe & Fittings**	Lap shear strength	IS-14182:1994	1 MPa to 100 MPa
		Hydrostatic burst strength	IS-14182:1994	0 to 140 kg/cm^2
9.	**Rotational Moulded Polyethylene Water Storage Tank**	Net/gross capacity	IS-12701:1996	200 l to 20000 l
		Hight, diameter (Overall effective ht, Int.dia, Rim ht, int.diamanhole/hand hole)	IS-12701:1996	200 mm to 5000 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Wall thickness	IS:12701:1996	1 mm to 20 mm
		Min. Wt of the tank without lid	IS:12701:1996	5 kg to 600 kg
		Finish	IS:7328:1992	Qualitative
		Density	IS:12701:1996	100 kg/m^3 to 2000 kg/m^3
		Resistance to impact	IS:12701:1996	Qualitative
		Resistance to deformation	IS: 12701:1996	01 % to 3 %
		Top load resistance	IS:13360:1996(Pt- 5/Sec 3/IS-12235:2004(Pt-13)	Qualitative
		Flexural tensile strength modulus	IS-13360:1996(Pt-5/Sec:7)	1 MPa to 1000 MPa
		Melt flow rate	IS-2530-1963	0.10 g/10min to 25g/10min
		Lid check	IS-12701/1996	0 to 25 mm
10.	**UPVC Pipes (Duct) & Fittings for Underground Telecommunication Cable Installation**	Pipe & socket dimensions	IS-12235-2004(Pt-1)	50 mm to 110 mm
		Colour, visual appearance	IS-14787:2000	Qualitative
		Pipe stiffness	IS-14787:2000	0.01 % to 90 %
		Crush resistance	IS-14787:2000	0.01 % to 90 %
		Flattening	IS-14787:2000	0.01 % to 90 %
		Heat Distortion test	IS-14787:2000(annex-E)	7 % to 100 %
		Co-efficient of Friction	IS-14787:2000(annex-F)	0.01 to 90
		Bending	IS-14787:2000(annex-G)	Qualitative
		Impact Strength	IS-14787:2000(annex-H)	Qualitative
		Tensile Strength Elongation	IS8543:1984(Pt.4/Sec.1)	1 MPa to 100 MPa 1 % to 1000 %
		Density	IS-13360(pt.3)	0.5 g/cc to 2.0 g/cc
		Hydrostatic Test for joint	IS-14787:2000(annex-M)	0 to 140 kg/cm^2
		Stress Relief Test	IS-12235:2004(Pt-6)	Qualitative
		Vicat Softening Temperature	IS-12235:2004(Pt-2)	25 °C to 300 °C

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
11.	**UPVC Injection Moulded Fittings for Soil & Waste Discharge System for Inside & Outside Buildings Including Ventilation & Rain Water System**	Visual Appearance	IS-14735:2000	Qualitative
		Dimension & Chamfer	IS-14735:2000	40 mm to 160 mm
		Hardness of Sealing Rings	IS-14735:2000	1 to 100
		Workmanship, Design Requirements	IS-14735:2000	Qualitative
		Impact Test (Drop Test)	IS-14735:2000	Qualitative
		Water Tightness of Joint	IS-14735:2000	1kg/cm^2 to 140 kg/cm^2
		Colour of Fittings	IS-14735:2000	Qualitative
		Stress Relief Test	IS-12235:2004(Pt-6)	Qualitative
		Vicat Softening Point	IS-12235:2004(Pt-2)	25 °C to 300 °C
12.	**Fabricated PVC Fittings for potable water supplies**	Dimension	IS-10124:2009	20 mm to 630 mm
		Opacity	IS-12235:2004(Pt-3)	0.00 to 100 %
		Short Term Hydraulic Test	IS-10124:2009(Pt-1) Appendix-B	0 to 140 kg/cm^2
13.	**Textiles-high density polyethylene (HDPE)/ Polypropylene for Packing Cement**	Dimensions	IS-11652:2017	1 mm to 800 mm
		Ends per dm/pick per dm	IS-11652:2017	1 to 50
		Mass of sacks	IS-11652:2017	1g to 80g
		Avg. breaking strength of fabric Elongation of fabric	IS-1969:1985	1 N to 5000 N 1 % to 1000 %
		Avg. breaking strength elongation at break of top & bottom seam	IS-9030:1979	1 N to 5000 N 1 % to 1000 %
		Drop Impact Strength	IS-11652:2017	Qualitative
14.	**Containers for Packaging of Natural Mineral Water & Drinking**	Material Identification	As per IS-13360(Pt-6)Sec-10-92(RA-2003),as per ISO 3451-I(part-1) Method A	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Water	Manufacture, Workmanship Finish & Appearance	IS-15410:2013	Qualitative
		Nominal Capacity		1 ml to 20 l
		Brimful Capacity	IS 2798:1998	1 ml to 20 l
		Wall Thickness	IS-2798:1998	0.01 mm to 25 mm
		Transparency	IS 15410	0 to 100 %
		Leakage test	IS:2798:1998	Qualitative
		Drop test	IS:2798:1998	Qualitative
15.	**Block Boards**	Dimensions & Tolerances	IS-1659:2004	0.02 mm to 50 mm
		Edge Straightness	IS-1659:2004	0.01 % to 0.2 %
		Squareness	IS-1659:2004	0.01 % to 0.2 %
		Defects	IS-1659:2004	Qualitative
		Dimensional changes caused by Humidity	IS-1659:2004	1 mm to +1 mm
		Resistance to water	IS-1659:2004	Qualitative
		Adhesion of plies	IS-1659:2004	Qualitative
		Mycological Test	IS-1659:2004	Qualitative
		Modulus of Rupture modulus of Elasticity	IS-1659:2004	5 MPa to10000 MPa 5 MPa to10000 MPa
16.	**Plywood for General Purposes**	Dimension & Tolerances	IS-303:1989	0.02 mm to 50 mm
		Edge Straightness	IS-303:1989	0.01 % to 0.2 %
		Squareness	IS-303:1989	0.01 % to 0.2 %
		Permissible Defects	IS-303:1989	Qualitative
		Workmanship and finish	IS-303:1989	Qualitative
		Glue Adhesion Test	IS-1734:1983(RA 2013) (Part-5)	Qualitative
		Water Resistance Test	IS-303:1989	Qualitative
		Mycological Test	IS-1734:1983(RA 2013) (Part-5)&(Part-7)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Moisture Content Test	IS-1734:1983(RA 2013) (Part-1)	0.01 % to 100 %
		Static Bending Strength MOR & MOE	IS-1734:1983(RA 2013) (Part-11)	5 MPa to10000 MPa 5 MPa to10000 MPa
17.	**Bamboo Mat Board for General Purposes**	Bamboo Mats	IS-13958:1994	5 mm to15 mm
		Moisture Content of Bamboo Mat Board	IS-13958:1994	0.01 % to 100 %
		Dimensions Tolerances	IS-13958:1994	0.01 mm to 6 mm 0.01% to 10 %
		Workmanship & Finish	IS-13958:1994	Qualitative
		Internal Bond Strength Test		
		Internal Bond Strength in Dry State	IS-13958:1994	0.01 N/mm^2 to 100 N/mm^2
		Internal Bond Strength in Wet State	IS-2380:1981(RA-2013) (Pt-5)	0.01 N/mm^2 to 100 N/mm^2
		Mycological Test	IS2380:1981(RA-2013)(Pt-5)	0.01 N/mm^2 to 100 N/mm^2
		Surface Strength (all test)	IS2380:1981(RA-2013)(Pt-5)	0.01 N/mm^2 to 100 N/mm^2
		Surface Strength Test in Dry State	IS2380:1981(RA-2013)(Pt-22)	0.01 N/mm^2 to 100 N/mm^2
		Surface Strength Test in Wet State	IS-2380:1981(RA-2013) (Pt-22)	0.01 N/mm^2 to 100 N/mm^2
		Mycological Test	IS-2380:1981(RA-2013) (Pt-22)	0.01 N/mm^2 to 100 N/mm^2
		Modulus of Rupture (MOR) Modulus of Elasticity (MOE)	IS2380:1981(RA-2013) (Pt-4)	5 MPa to 10000 MPa 5 MPa to 10000 MPa
18.	**Plywood for**	Thickness of the Veneers	IS 4990:2011 (RA 2017)	0 to 50 mm 0 to 5

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Concrete Shuttering Work	Dimensions & Tolerances	IS 4990:2011 (RA 2017)	0 to 15 m 0 to 50 mm
		Workmanship & finish	IS 4990:2011 (RA 2017)	Qualitative
		Moisture Content	IS-4990:2011(RA-2017) IS 1734(P-1)	0.01 % to 100 %
		Glue Adhesion in Dry State	IS4990:2011(RA-2017)	
		Glue Shear Strength	IS 1734:1983(RA-2013)(P-4)	0.01 N to 100000 N
		Adhesion of Plies	IS-4990:2011(RA-2017)&IS1734:1983(RA-2013)(P-5)	Qualitative
		Visual Check	IS4990:2011(RA-2017)	Qualitative
		Water Resistance Test	IS4990:2011(RA-2017)IS1734:1983(RA-2013)(P-4)4990 &	Qualitative
		Glue Shear Strength	IS1734:1983(RA-2013)(P-4)	0.01 N to 100000 N
		Adhesion of Plies	IS4990:2011(RA-2017)IS1734:1983(RA2013)(P-5)	Qualitative
		Tensile Strength	IS 4990: 2011(RA-2017) & IS 1734(P-9)	0.01 N/mm^2 to 100 N/mm^2
		Mycological Test	IS1734:1983(RA-2013)(P-7,P-4 & P-5)	Qualitative
		Glue Shear Strength		0.01 N to 100000 N
		Adhesion of Pipe		Qualitative
		Static Bending Strength	IS4990:2011(RA2017)& IS1734:1983(RA-2013)(P-11)	
		MOR		5 MPa to 10000 MPa
		MOE		5 MPa to 10000 MPa
19.	**Marine Plywood**	Dimensions Tolerance	IS 710:2010(RA-17)	0 to 15 m
		Workmanship & Finish	IS 710:2010(RA-17)	0 to 50 mm
		Moisture Content	IS710:2010(RA-17)&	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS1734:1983(RA-2013)(P-1)	
		Glue Adhesion in Dry State	IS-710:2010(RA-17)& IS1734:1983(RA-13)(P-4)	0.01 % to 100 %
		Glue Shear Strength	IS-710:2010(RA-17) IS 1734:1983(RA-2013) (P-4)	0.01 N to 100000 N
		Adhesion of plies	IS710:2010(RA-17) IS1734:1983(RA-2013) (P-5)	Qualitative
		Water Resistance Test	IS 710:2010(RA-17) IS:1734:1983(RA-2013) (P-5)	
		Glue Shear Strength		0.01 N to 100000N
		Adhesion of Plies		Qualitative
		Tensile Strength	IS 710:2010(RA-17) IS 1734:1983(RA-2013) (P-9)	0.01 N/mm^2 to 100 N/mm^2
		Mycological Test		
		Glue shear strength	IS-710:2010(RA-17) IS 1734;1983(RA-2013)(P-7)P-5 &P-11)	0.01 N to 100000 N
		Adhesion of plies		Qualitative
		Static Bending Strength: MOR MOE	IS710:2010(RA-17)& IS 1734:1983(RA-2013) (P-11)	5 MPa to 10000 MPa 5 MPa to 10000 MPa
		Wet Bending Strength: MOR MOE	IS 710:2010(RA-17) & IS:1734:1983(RA-2013) (P-11)	5 MPa to 10000 MPa 5 MPa to10000 MPa
20.	**Textiles-HDPE/PP Woven sacks for packing of 50kg food grains**	Fabric	IS:14887:2014	Qualitative
		Capacity	IS:14887:2014	0 to 50 kg
		Dimension	IS-14887:2014	1 mm to1500 mm
		Ends per dm/picks per dm	IS-14887:2014	1to50
		Mass of sacks	IS-14887:2014	1 g to 216 g

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Avg.Breaking Strength of Fabric	IS-1969(Pt-1)-1985	1N to 5000 N
		Min.Breaking Strength of Bottom Seam	IS 9030 -1979	1N to 5000 N
		Elongation at Break of Fabric	IS 1969:1985(RA-10)(Pt-1)	1 % to 1000 %
		Avg. Breaking Strength & Elongation at Break of Fabric after exposed to UV radiation and weathering	IS-14887:2014& IS-1969:1985(Pt-1)	1 N to 5000 N 1 % to 1000 %
		Sacks	IS:14887:2014	Qualitative
		Bottom seam	IS:14887:2014	Qualitative
		Mouth	IS-14887:2014	Qualitative
21.	**PE Pouches for Packaging Liquid Milk**	Material	IS-11805:2007	Qualitative
		Visual Appearance	IS-11805:2007	Qualitative
		Film Form	IS-11805:2007	Qualitative
		Odour	IS-11805:2007	Qualitative
		Dimensions	IS-11805:2007	0.01 µm to1000 µm
		Tensile Strength & Elongation at Break	IS-2508:1984	1 N to1000 N 1 % to1000 %
		Dart Impact Resistance	IS-2508:1984	5 gf to1000 gf
		Slip	IS-2508:1984	200 g to1000 g
		Sealing Property & Construction	IS-11805:2007	Qualitative
		Printing	IS-11805:2007	Qualitative
		Leakage Test	IS-11805:2007	Qualitative
		Drop Test	IS-11805:2007	Qualitative
		Printing Requirements	IS11805:2007	Qualitative
22.	**Textiles- HDPE/PP Woven Sacks for**	Fabric	IS-16208:2015	Qualitative
		Capacity	IS-16208:2015	0 to 30 kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Packaging of 10kg, 15kg, 20kg, 25kg & 30kg Food Grains	Dimension	IS-16208:2015	1 mm to1000 mm
		Ends per dm/picks per dm	IS:16208:2015	1to50
		Mass of sacks	IS-1964:2001	1 g to 100 g
		Avg. Breaking Strength of Fabric	IS-1969:1985(Part-1)	1 N to 5000 N 1 % to 1000 %
		Min. Breaking Strength of Bottom Seam	IS-9030:1979	1 N to 5000 N
		Elongation at Break of Fabric	IS-1969:1985(Part-1)	1% to 1000 %
		Avg. Breaking Strength of Fabric after exposed to UV radiation & weathering	IS-16208:2015 &IS 1969:1985(Part-1)	1 N to 5000 N 1 % to 1000 %
		Sacks	IS-16208:2015	Qualitative
		Bottom Seam	IS-16208:2015	Qualitative
		Mouth	IS-16208:2015	Qualitative
23.	**Textiles-HDPE/PP Woven sacks for packaging of 50kg/ 25kg sugar**	Fabric	IS-14968:2015	Qualitative
		Sack	IS-14968:2015	Qualitative
		Bottom Seam	IS-14968:2015	Qualitative
		Mouth	IS-14968:2015	Qualitative
		Liner(Mass)	IS-14968:2015	1 g to 100 g
		Liner(Dimension)	IS-14968:2015	1 mm to 1000 mm
		Liner(Visual Apprearance)	IS-14968:2015	Qualitative
		Capacity	IS-14968:2015	0 to 50 kg
		Mass of Bale	IS-14968:2015	1 g to100 g
		Dimension	IS-14968:2015,annex-B	1 mm to 1000 mm
		Ends per dm/picks per dm	IS-14968:2015,annex-B	1 kg to 50 kg
		Mass of unlaminated sack/sack with liner	IS-14968:2015	1 g to 100 g
		Avg. Breaking Strength of Fabric	IS- 1969(Part-1)-1985	1 N to 5000 N 1 % to1000 %
		Min.Breaking Strength of	IS-9030:1979	1 N to 5000 N

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bottom Seam		
		Elongation at Break of fabric	IS-1969(Part-1)-1985	1 % to 1000 %
		Avg.Breaking Strength & elongation at break of fabric after exposed to UV radiation and weathering	14968:2015,Annex-C &IS-1969(Part-1)-1985	1 N to 5000 N 1 % to 1000 %
24.	**Textiles-HDPE/PP Woven Sacks for Filliing Sand**	Fabric	IS-14252:2015	Qualitative
		Tying Cord	IS-14252:2015	Qualitative
		Sack	IS-14252:2015	Qualitative
		Dimension	IS-14252:2015,annex-B	1 mm to 1000 mm
		Ends per dm/picks per dm	IS-14252:2015,annex-B	0 to 50
		Mass of sack	IS-14252:2015	1 g to100 g
		Avg. Breaking strength of fabric	IS-1969:1985(Part-1)	1 N to 5000 N 1 % to 1000 %
		Mass of bale	IS-14252:2015	1 kg to 600 kg
25.	**Wooden Flush Door Shutters (Solid Core Type)**	Sizes(Dimension of Flush Door Shutters)	IS:2202:1999(part-1)	0 to 15 m 0 to 50 mm
		Plywood	IS:2202:1999(part-1)	Qualitative
		Workmanship & Finish	IS:2202:1999(Part-1)	Qualitative
		Dimensions and Squareness Test	IS:2202:1999(Part-1)	0.0 to 3000 mm
		General Flatness Test	IS:4020:1998 (RA-2013) (Pt2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16)	Qualitative
		Local Planeness Test		0 to 1mm
		Impact Identification Test		0 to 0.5mm
		Flexure Test		0 to100 mm
		Edge loading Test		0 to10 mm
		Shock Resistance Test		Qualitative
		Buckling Test		0 to100 mm
		Slamming Test		Qualitative
		Misuse Test		0to10 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Varying Humidity Test		Qualitative
		End Immersion Test		Qualitative
		Knife Test		Qualitative
		Glue Adhesion Test		Qualitative
		Screw Withdrawal Resistance Test		0.01 N to 100000 N
26.	**Monoaxially Oriented HDPE Tapes**	Linear Density	IS 6192:1994(RA2004)	1 denier to2000denier
		Tenacity		1 g/denier to100g/denier
		Elongation of the tape		1 % to1000 %
		Width of the tape		1 mm to 1000 mm
		Heat Shrinkage (at 60^0C)		27 °C to300 °C
		Heat Shrinkage (95^0C)		27 °C to300 °C
27.	**Textiles-high Density Polyethelyne (HDPE) Polypropylene (pp) Woven Sacks for Packing Fertilizers**	Fabric	IS-9755:2016	Qualitative
		Sack (Visual Appearance)		Qualitative
		Linear Width		1 mm to 1000 mm
		Linear Thickness		0.01 µm to 1000 µm
		Linear Visual Appearance		Qualitative
		Visual of Lamination		Qualitative
		Bottom Seam		Qualitative
		Mouth of the Sack		Qualitative
		Capacity		0 to 50
		Dimensions(mm):		
		Length		0 to 1500 mm
		Width		1 mm to 50 mm
		Ends per dmpicks per dmmass of fabric		0 to100 g/m^2
		Average Breaking strength of fabric	IS 1969(part-1):1985	1 N to 5000 N
		Minimum Breaking strength of bottom seam	IS 9030	1 N to 5000 N
		Elongation at break of	IS 1969	1 % to 1000 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		fabric		
		Breaking strength of fabric after exposed to UV radiation and weathering	IS 1969(Part-1):1985	1 N to 5000 N
		Mass of sack	IS 9755:2016	1 g to 216 g
28.	**High Density PE Film**	MFI	IS-13360(Part-4/sec:1)	0.10 g/10 min to 25 g/10min
		Appearance	IS-10889:2004	Qualitative
		Film Form		Qualitative
		Odour		Qualitative
		Density	IS-13360(part-3/sec1)	0.5 g/cc to2.0 g/cc
		Nominal thickness	IS-10889:2004	0to100µm
		Nominal width		1mm to1500mm
		Tensile strength at break	IS-13360(part-5/sec1)	1MPa to300MPa
		Elongation at break	IS-13360(Part-5/sec1)	1 % to1000 %
		Impact Resistance	IS-13360(Part-5/sec 6)	5 gf to 1000 gf
29.	**Monoaxially Oriented PP Tape**	Melt Flow Rate	IS-11197:1985	0.10 g/10min to 25 g/10min
		Linear Density		1 denier to 2000 denier
		Tenacity		1 g/denier to 100 g/denier
		Elongation of the tape		1 % to 1000 %
		Thickness of the tape		0to100µm
		Width of the tape		1 mm to1000 mm
		Dimensional stability (100 °C &10 min)		27 °C to 300 °C
		Dimensional stability (at 100 °C & 10min)		27 °C to 300 °C
30.	**Jute Bags for Packing 50 kg**	Bag	IS 12650:2003	Qualitative
		Seam	IS 12650:2003,IS 9113	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Food Grains	Safety Stitch		Qualitative
		Hemming at the mouth		Qualitative
		Freedom for defects		Qualitative
		Dimension		1 mm to 1000 mm
		Ends per dm		1 to 50
		Picks per dm		1 to 50
		Corrected mass per bag		0 to 1000 g
		average breaking strength of sacking		0.01 N/mm^2 to 100 N/mm^2
		Average seam strength		0.01 N/mm^2 to 100 N/mm^2
		Moisture Regain %		0.01 % to 100 %
		Total number of bags per bale		Qualitative
		Number of joined bags per bundle		Qualitative
		Contract mass of a bale		0 to1000 g
		Corrected net mass of a bale		0 to1000 g
		Number of joined bags per bundle of 25 bags		Qualitative
31.	**Irrigation Equiptment-Polyethylene Pipes for Irrigation Laterals**	Density	IS 12786:1989	0.1 g/ml to 3.0 g/ml
		Dimensions		
		Diameter	IS 12786:1989	12 mm to 32 mm
		wall thickness	IS 12786:1989	0.1 mm to 20 mm
		visual appearance	IS 12786:1989	Qualitative
		hydraulic characteristic	IS 12786:1989	0 to140 kg/cm^2
		Tensile Strength	IS 12786:1989	1 MPa to100 MPa
		Elongation at break	IS 12786:1989	1 % to 1000 %
32.	**HDPE Pipe for Sewerage**	Colour	IS 14333:1996	Qualitative
		Dimensions		6 3mm to 630 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Coiling		Qualitative
		Visual appearance		Qualitative
		Hydraulic characteristics (both Type & Acceptance)		1 kg/cm^2 to 140 kg/cm^2
		Density	IS-7328:1992	0.5 g/cc to2.0g/cc
		Melt flow rate	IS-2530:1963	0.10 g/10 min to 25 g/10min
33.	**Jute bags for Packing 50 kg Sugar**	Fabric	IS-15138:2010	Qualitative
		Seam	IS-15138:2010 IS 9113: 2012	Qualitative
		Hemming at the mouth		Qualitative
		Freedom from defects		Qualitative
		Visual appearance(Liner)		Qualitative
		Thickness of liner		0.0 to1000 µm
		Dimension		1 mm to1500 mm
		Ends per dm		1 to 50
		Picks for dm		1 to 50
		Corrected mass per bag		0 to 1000 g
		Average breaking load of sacking		1 N to 5000 N
		Average breaking load of seam		1 N to 5000 N
		Moisture regain %		0.01% to 100 %
		Total Number of bags per bale		Qualitative
		Number of joined bags per bundle of 25 bags		Qualitative
34.	**Polypropylene Random Copolymer Pipes for Hot & Cold**	Colour	IS 15801:2008	Qualitative
		General	IS 15801:2008	Qualitative
		Density	IS 13360(Part3/sec 1)	100 kg/m^{3}to2000kg/m^3
		Melt flow rate	IS 13360(Part 4/sec 1)	0.10g/10min to 5g/10min

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Water Supplies	Dimension	IS 15801:2008	16mmto200mm
		Visual appearance	IS 15801:2008	Qualitative
		Internal creep rupture test	IS 12235 (Part 8/sec 1)	0 to 140 kg/cm^2
		Fusion Compatibility test	IS 12235 (Part 8/sec 1)	0 to 140 kg/cm^2
		Impact Strength	IS 13360 (Part 5/sec 5)	1.6 j to 25 j
		ThermalStability(Hydrostatic Pressure testing for 8760 hrs)	IS 12235 (Part8/sec 1)	0 to 140 kg/cm^2
		Opacity	IS-12235-2004 (Part-3)	0.00 to 100 %
35.	**PE Pouches for Packaging of Natural Mineral Water & Package Drinking Water**	Description	IS 15609:2005	Qualitative
		Film form		Qualitative
		Winding of film		Qualitative
		Odour		Qualitative
		Thickness	IS 2508:2016	0.01 µm to1000 µm
		Width	IS 15609:2005	1 mm to 1000 mm
		Tensile Strength	IS 2508:2016	0.01 N/mm^2 to 100 N/mm^2
		Elongation at break		1 % to 1000 %
		Dart impact Resistance		5 gf to1000 gf
		Stack load test	IS 15609:2005	Qualitative
		Drop test		Qualitative
		Ink adhesion of printed pouches		Qualitative
		Product resistance of printed pouches		Qualitative
		Construction		Qualitative
36.	**HDPE Crates for Milk Sachets**	Density	IS 7328:1974	0.5 g/cc to 2.0 g/cc
		Shape & dimension	IS 11584:1986	1 mm to 1000 mm
		Mass		0 to 2000 g
		Appearance & surface finishResistance to stress		Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Resistance to applied load		Qualitative
		Resistance to drop		N/A
		Resistance to low		N/A
		Temperature drop		N/A
		Dimensional Stability		0.1 % to 3 %
37.	**Jute Bags for Packing Sugar**	Jute fabric (GSM)	IS 12493:1988	0 to 1000 g
		Ends per dm		1 to 50
		Picks per dm		1 to 50
		Bag type		Qualitative
		Seam		Qualitative
		Safety Stitch		Qualitative
		Hemming at the mouth		Qualitative
		Joined bag		Qualitative
		Freedom from defects		Qualitative
		Dimension		1 mm to1000 mm
		Corrected mass		0 to 1000 g
		Moisture Regain %		0.01% to 100 %
		Breaking Strength of cloth		0.01 N/mm^2 to 100 N/mm^2
		Seam breaking strength		0.01 N/mm^2 to 100 N/mm^2
		Corrected net mass of a bale		0 to 1000 g
		Total Number of bags per bale		Qualitative
		Number of joined bags per Bundle of 25 bags		Qualitative
38.	**PE Lined Jute Bags for Packing Tea**	Jute bag		
		Ends per dm	IS 13649:1993	1 to 50
		Picks per dm		1 to 50
		Handle		Qualitative
		Liner bag		

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Thickness of liner Liner	IS 13649:1993	Qualitative
		Seam		
		Visual	IS:13649:1993	0 to1000 gms
		Cord linear density		Qualitative
		No of stitches per dm		Qualitative
		Gusset Freedom from defects		Qualitative
		Dimension of linear bag		Qualitative
		Dimension of Jute bag		1 mm to1000 mm
		Breaking Strength of fabric		0.01 N/mm^2 to 100 N/mm^2
		Breaking Strength of Seam		0.01 N/mm^2 to 100 N/mm^2
		Ends Per dm		1 to 50
		Picks Per dm		1 to 50
		Mass Per Bag		0 to 1000 g
		Moisture Regain %		0.01 % to 100 %
		Corrected net mass of a trusses		0 to 1000 g
39.	**Dunnage Pallets Warehousing**	Dimensions	IS:13714:1993	0 to 15 m
		Timber		Qualitative
		Moisture Content		0.01 % to 100 %
		Visual Appearance		Qualitative
		Objectionable Knots		Qualitative
		Construction		Qualitative
		Workmanship & Finish Marking		Qualitative