

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	1 of 9

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

I. PLASTICS, RUBBER AND LEATHER

1. UPVC pipe for Potable Water Supplies , UPVC Screen and casing Pipes for Bore/Tube Well, UPVC Pipes for Soil and Waste Discharge System inside buildings including ventilation and Rain Water System, High Density Polyethylene Pipes for Potable Water Supplied, Polyethylene pipes for Irrigation Laterals Quick Coupled Polyethylene, Rotational Moulded Polyethylene Water Storage tanks, Low Density Polyethylene Films. LDPE Pipes for potable water supplies UPVC single walled corrugated pipe for drainage, PE Pipes for Irrigation Laterals Irrigation	Reversion Test	IS: 12235 -2004 (Pt.5) IS: 3076-85 / IS:4984:95 Annex C(RA2008)/ IS:12235(Pt-5)-2004(RA2009)/ IS: 12786-89(RA2009)/ IS:13592-92 (RA2008)/ IS: 14151(Pt-1)-99(RA2009)/ IS: 14333-96 Annex C (RA2007)/ IS:14885-2001 Annex C (RA 2007)/ IS:14787-2000(RA2010)/ IS: 15328 :2003(RA 2008)/ IS :15778 : 2007 IS: 15801: 2008	0.1 to 10%
	Dimensions Thickness	IS: 4985-2000(RA 2005)/ IS:4984 -1995 (RA 2002)/ IS:12701-96 (RA 2002)/	0.01 to 50mm
	Diameter	IS:14151 (PT-1)-99(RA2009) / IS: 14151(Part 2):2008/ IS: 2508-84 (RA 2003) / IS:13592-92 (RA 2002)/ IS: 12818-2010/	0.01 to 200mm 0.01 to 300mm
	Length	IS:14787:2000 (RA 2005) /	1 to 600mm
	Width	IS: 14885 -2001 (RA 2007) / IS:14735-99 (RA 2004) / IS:13488-2008 / IS:12231-87 (RA 2003) IS: 3076-85/ IS: 9271-04(RA2009)/ IS: 12786-89(RA2009)/ IS :13487-92(RA2009)/	1 to 500mm

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	2 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Equipments – Emitters, HDPE Pipes for Sewerage, PE microtubes for drip irrigation, UPVC Pipes & Fittings for Telecommunication PE Pipes for Gaseous Fuel UPVC non pressure Pipes for SWR System PE/Al/PE composite pipe Chlorinated Polyvinyl Chloride, PipesPolypropylene Random Copolymer pipes for hot and cold water supplies, Fabricated PVC fittings, Injection Moulded PVC Fittings UPVC Injection Moulded Fittings for SWR, Containers for Packaging of Natural Mineral Water and Packaged Drinking Water		IS: 14333-96(RA2007)/ IS: 14482-97(RA 2009)/ IS: 14787-2000 IS: 14885-2001(RA2007)/ IS : 15328-03(RA2008)/ IS: 15450-04/ IS: 15778-07/ IS: 15801-08/ IS: 12235(Pt-1)-2004(RA2009)/ IS: 12235(Pt-1)-(RA2009)/ IS: 10124(Pt-1 to13)-8(RA2003)/ IS: 7834 (Pt-1 to 8)-87(RA2008)/ IS: 14887-2000 (RA2006)/ IS: 7903:2011 (RA2010)/ IS: 15907:2010 IS:10889 -1984(RA2003)/ IS:11805 -1989(RA2004)	0.01 to 50mm 0.01 to 200mm 0.01 to 300mm 1 to 600mm 1 to 500mm
		Visual Appearance	IS: 4985-2000(RA 2005) / 4984-1995(RA 2002)/ IS:12701-96/ IS:14151 (Pt-1)-99(RA2009) / IS:14151 (Pt-2)-2008/ IS:2508-84(RA 2003) / IS:13592-92 / IS:12818-10 IS:14787:2000 (RA 2005)/ IS: 14885 (RA 2007) / IS:14735-99 (RA 2004) / IS:7903-2011 IS: 3076-85/ IS: 9271-04(RA2009)/	Qualitative

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	3 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Fabricated PVC fittings, Injection Moulded PVC Fittings UPVC Injection Moulded Fittings for SWR, Containers for Packaging of Natural Mineral Water and Packaged Drinking Water	Visual Appearance	IS:12786-89(RA2009)/ IS :13487-92(RA2009)/ IS: 13488-2008 (RA2009)/ IS: 14333- 96(RA2007)/ IS: 14482-97(RA 2009)/ IS: 14787-2000(RA 2010)/ IS: 14885 2001(RA2007)/ IS : 15328-03(RA 2008)/ IS: 15450-04/ IS : 15778-07/ IS: 15801-08 IS: 10889 -1984(RA2003)/ IS: 11805	Qualitative
2.	UPVC pipe for Potable Water Supplies , UPVC Screen and casing Pipes for Bore/Tube Well, UPVC Pipes for Soil and Waste Discharge System inside buildings including ventilation and Rain Water System, High Density Polyethylene Pipes for Potable Water Supplied, Polyethylene pipes for Irrigation Laterals Quick Coupled	Opacity Hydraulic Characteristics (Acceptance & Type)	IS: 12235-2004 (Pt. 3) IS: 12235-2004 (Pt. 8)/ IS: 4984-95(RA 2005)/ IS:14151 (Pt-1)-99(RA2009) / IS:14151 (Pt-2)-2008 IS: 3076-85/ IS:4984:95 Annex B(RA2008)/ IS: 12786-89(RA2009)/ IS: :13487-92(RA2009)/ IS: 13488-2008(RA2009)/ IS: 13592-92 (RA 2008)/ IS: 14151(Pt-1)-99 (RA2009) / IS: 14151(Pt-2)-2008(RA2009)/ IS: 14333-96 Annex. B(RA2007)/ IS: 14885-2001 Annex A(RA2007) IS:15778 : 2007/IS-15801 : 2008/	0.01 to 100% Qualitative

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	5 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	supplies, Fabricated PVC fittings, Injection Moulded PVC Fittings UPVC Injection Moulded Fittings for SWR, Containers for Packaging of Natural Mineral Water and Packaged Drinking Water	Effect on Sunlight	IS:13592:1992(RA 2002)	Qualitative
		Water Tightness of Joint	IS:13592:1992(RA 2002)	Qualitative
3.	UPVC Injection Moulded Fittings for SWR Chlorinated Polyvinyl Chloride Pipes UPVC single walled corrugated pipe for drainage UPVC non pressure Pipes for SWR System Sealing Ring Multilayered Cross Laminated Sheet & Tarpaulins Thermoplastic Fumigation Cover Textile - HDPE Tarpaulin HDPE Woven Beds for Vermiculture	Fusion compatibility test	IS:14151-1999 (Pt.1) (RA2009)	Qualitative
		Fusion Compatibility test	IS:15801 : 2008	Qualitative
		Hardness (Shore – A)	IS:14151-2008 (Pt.2) IS: 12818:2010/ IS: 5382:1986(RA2008)/ IS: 14151(Part 2)2008(RA2009)	1 to 100
		Leakage Test	IS:14151-2008 (Pt. 2) IS: 2798-1998(RA2009)	Qualitative
		Weldability test	IS:14151-2008(Pt. 2) (RA2009)	Qualitative
		Net/Gross Capacity	IS:12701-1996(RA 2002)	1 to10,000 litres
		Resistance to deformation	IS:12701-1996(RA 2002)	Qualitative
		Top load deformation	IS:12701-1996(RA 2002)	Qualitative.
	Resistance to Impact	IS:12701-1996(RA 2002)	Qualitative	
	Impact Resistance	IS:2508 – 84(RA 2003)		

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	6 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	HDPE/ PP/ Woven Sacks UPVC pipe casing for Tube well/Bore well Irrigation Equipment - Sprinkler Pipes PE Pipes	Flexural Modulus	IS:13360 – 95 (Pt. 5/Sec.7) ASTM D790-10	0.001N to 100000N
		Stress relief test	IS:13592-92(RA2008)/ IS: 7834-87 (Pt-1) 87Annex A. (RA2008)/ IS: 12235(Pt-6)-2004 (RA2009)// IS:14787-2000 (RA2010)/ IS:14735-99(RA2009)	Qualitative
		Resistance to External blows at 0°C / Impact Strength at 0°C	IS: 12235 (Pt-9)-2004/ (RA2009)/ IS:14735-99 Annex. C(RA2009)/ IS:15778 : 2007/IS 9271 :2004 Annex B(RA2009)/ IS: 15328 :2003 Annex B(RA2008)/	Qualitative
		Thermal Stability for 8760 Hrs	IS:15778 : 2007/ IS: 12235 :2004(Part 8/Sec 1) RA2009)/ IS: 15801 : 2008	Qualitative
		Flattening Test	IS 12235 (Part 19) :2004 (RA2009)/	Qualitative
		Charpy Impact Strength	IS: 15801 Annex B IS: 13360 (Part 5/ Sec.5)	0.001J to 25J
		Aging of Rubber Ring	IS: 12818: 2010/IS 5382:1986(RA2008)/ IS: 14151 (Part2)2008(RA2009) IS: 14151(Pt-2)-2008/(RA2009) IS: 7016 -1975(Part 8) (RA2006)/	Qualitative

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	7 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Irrigation Equipments – Emitters & Emitting Pipes	Uniformity of emission Rate	IS: 13487-92(RA2009)/ IS:13488-2008(RA2009)/	0.1 to16 LPH
		Emission Rate as a function of Inlet Pressure	IS: 13487-92(RA2009)/ IS:13488-2008(RA2009)/	0.1 to16 LPH
		Determination of emitting unit exponent	IS: 13487-92(RA2009)/ IS:13488-2008(RA2009)/	Qualitative
		Emitter pull out test	IS: 13487-92 (RA2009)/	40 N
		Resistance to tension at elevated temperature	IS: 13488-2008(RA2009)/	Qualitative
		Resistance to pull out of joints in the fitting emitting pipe	IS: 13488-2008 (RA2009)/	Qualitative
5.		UPVC Pipes for SWR System	Axial shrinkage	IS: 13592-92 Annex A(RA2008)
6.	UPVC Plain Screen and Casing pipes	Test for internal dia	IS: 12818-2010	33- 390mm DN
7.	Multilayered Cross Laminated Sheet & Tarpaulins Thermoplastic Fumigation Cover Textile - HDPE Tarpaulin HDPE Woven Beds for Vermiculture HDPE/ PP/ Woven Sacks	Water Repellency Test Water Proofness test	IS: 14611-98 (RA2008)/IS:13217-91(RA2006)/ IS : 7016 -2008(Part 7) IS: 7940-1976 (RA2004)/ IS: 7941-1976 (RA2004)	Qualitative
		Welded seam strength	IS: 14611-98/ (RA2008)/IS:13217-91 IS : 7903:2011 (RA2010)/ IS :1969-1985(RA1999)/ IS: 7016 -1975(Part 8) (RA2006)/IS 15907-2010 IS: 9030 -1979 (RA2008)	0.001 to 100000 N
		Tear Strength	IS: 7016 -1981(Part 3) (RA2008)/	0.001 to 100000 N
		Puncture Strength	IS : 15907:2010 Annex C	0.001 to 100000 N

Laboratory	Central Institute of Plastics Engineering & Technology (CIPET), Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	25.07.2014
Certificate Number	T-1756	Valid Until	24.07.2016
Last Amended on	-	Page	8 of 9

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
8.	Multilayered Cross Laminated Sheet & Tarpaulins Thermoplastic Fumigation Cover Textile - HDPE Tarpaulin HDPE Woven Beds for Vermiculture HDPE/ PP/ Woven Sacks Shade Net HDPE/ PP/ Woven Sacks	Mass of sack Avg. breaking strength of fabric / bottom Elongation at break of fabric Burst Pressure test Ends and Picks	IS:14887-2000/ IS : 15907:2010 IS : 1964 -2001(RA2006) IS :1969-1985(RA1999) IS :1969-1985(RA1999) IS 1966 -2009/ IS 7016 IS : 1954 :1990(RA2007)/	0.0001 to 1000 g/m ² 0.001 to 100000 N 0.001 to1000% 0.01 to 100 Kg/cm ² 20-60
9.	Containers for Packaging of Natural Mineral Water and Packaged Drinking Water	Workmanship/ finish/appearance/ Wall thickness Capacity Drop Test	IS:15410-2003(RA2009) IS: 2798-1998(RA2009) IS: 2798-1998(RA2009) IS: 2798-1998(RA2009)	Qualitative 0.001 to 75mm 1 ml – 50000 litres Qualitative
10.	Polyamide multifilament Ropes (Hawser laid and Plaited) Polyethylene Ropes - Textiles - High Strength Polyolefins Co-Polymers Ropes Poly propyl +N+ Ropes (3-stand Hawser laid & 8 Strand Plaited) Polyester & Poly propylene composite Ropes	Mass per coil Pitch / Length Linear Density Breaking Force	IS : 4572 – 1992 (RA2008) IS : 8674:1989 (RA2005) IS : 7071 (Part -2) 989(RA2003)/ IS: 14929 : 2001/ IS: 5175 : 1992 (RA2003)/ IS : 7071 (Part 3) 1989, (RA2003)/ IS : 7071 (Part 2) 1989 (RA2003)/ IS : 7071 (Part 4) 1986 (RA2004) IS: 14928-2001	1-150Kg 1-500 mm 1 to 50000Ktex 0.001 N to 100000 N

Laboratory Central Institute of Plastics Engineering & Technology (CIPET),
Plot No. J-3/2, MIDC Industrial Area, Chikalthana, Aurangabad,
Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing **Issue Date** 25.07.2014

Certificate Number T-1756 **Valid Until** 24.07.2016

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

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
11.	Plastic Materials & Products	Compressive strength of rigid Plastics	ASTM – D-695-10	0.001 N to 100000N
12.	Plastic Film/ (LDPE , HDPE, LLDPE Film)	Yield Tolerance	IS: 2508-1984 (RA2003)/ IS: 10889 -1984(RA2003)/ IS: 11805 -1989(RA2004)	Qualitative

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