

Laboratory Indian Institute of Packaging, Plot No. 169, Industrial Estate,  
Perungudi, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6659 (In lieu of T-3673, T-3674)

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Validity 09.11.2017 to 08.11.2019

Last Amended on 18.12.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<b><u>CHEMICAL TESTING</u></b>				
<b>I. PAPER AND PULP</b>				
1.	Paper & Paper Board	Ash Content  pH	IS 1060-(Part 1) 1966 (RA 2009), CL.11  IS 1060-(Part 1) 1966 (RA 2009), CL.10	0.01% to 50 %  4 to 9
2.	Paper, Paper Board and corrugated Fibre Board	Moisture Content	IS 1060-(Part 1) 1966 (RA 2009), CL.9	0.01% to 20 %
<b>II. PLASTIC &amp; RESINS</b>				
1.	Plastic materials & Products	Migration Test (Overall)	IS 9845 -1998 (RA 2010)	0.01 mg/dm <sup>2</sup> to 10 mg/dm <sup>2</sup>

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<b><u>MECHANICAL TESTING</u></b>				
<b>I.</b>	<b>PAPER &amp; PAPER PRODUCTS</b>			
<b>1.</b>	<b>Paper &amp; Paper Board</b>	Bulk	IS 1060-(Part 1) 1966 (RA 2009), CL.8	0.02 cc/g to 20 cc/g
		Burst Index	IS 1397 (RA 2008) CL.5.5 IS 1060-(Part 1) 1966 (RA 2009), CL.12.5.4	0.5 kPam <sup>2</sup> /g to 5 kPam <sup>2</sup> /g
		Burst Factor	IS 1060-(Part 1) 1966 (RA 2009), CL.12.5.4	10 to 40
		Ring Crush Test	IS 4006-(Part 1) 1985 (RA 2013) CI 11	0.098 N to 4900 N (0.01 kgf to 500 kgf)
		Tensile Strength	IS 1060-(Part 1) 1966 (RA 2009), CL.12.3	9.8 N to 4900 N (1 kgf to 500 kgf)
		Elongation	IS 1060-(Part 1) 1966 (RA 2009), CL.12.3	0 to 100%
		Tensile Index	IS 1397 (RA 2008) CL.5.5 IS 1060-(Part 1) 1966 (RA 2009), CL.12.3.5.2	0.10 Nm/g to 50 Nm/g
<b>2.</b>	<b>Paper, Paper Board and corrugated Fibre Board</b>	Thickness	IS 1060-(Part 1) 1966 (RA 2009), CL.7	0.001 mm to 1.0 mm
		Bursting Strength	IS 1060-( Part 1) 1966 (RA 2009), CL.12.5	0.5 kg/cm <sup>2</sup> to 35 kg/cm <sup>2</sup>
		Abrasion Loss	IS 4006-(Part 1), 1985 (RA 2013), CL 9	(0.01 to 100) mg/1000 resolutions
		Cobb Test	IS 1060-(Part 1) 1966 (RA 2009), CI 13.2.2 IS 4006-(Part 1)1985 (RA 2013)	0.01 g/ m <sup>2</sup> to 600 g/ m <sup>2</sup>

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		Grammage	IS 1060-(Part 1) 1966 RA 2009), CL.6 IS 7063 -(Part 4) 1976 Ra 2008	0.01 g/ m <sup>2</sup> to 600 g/ m <sup>2</sup>
3.	<b>Corrugated Fibre Board Box</b>	Internal/ External Dimension	IS 2771: (Part 1) 1990 (RA 2013) Clause 6	0.5mm to 5000 mm
		Combined Internal Dimension	IS 2771: (Part 1) 1990 (RA 2013) Clause 6	0.5mm to 5000 mm
		No of ply	IS 2771- (Part 1) 1990 RA 2002	Qualitative
		Style of Box	IS 6481:1971 RA 2002 Cl 6	Qualitative
		Type of Flute	IS 2771- (Part 1), 1990 RA 2002	Qualitative
		Puncture Resistance Test	IS 4006: (Part 2)1985 Clause 8	10 kg-cm to 100 kg-cm 20 to 500 Beach
		Drop Test	IS 7028-(Part 4)1987 (RA 2013),	Upto 1.8 m height
		Stack Load Test	IS 7028- Part 12002 (RA 2011),	Qualitative
		Edge Crush Test	IS 7063-(Part 2) 1976 (RA 2008), CL.1.1	0.098 N to 4900 N (0.01 kgf to 500 kgf)
		Compression Strength	IS 7028 -(Part 6) 1987 RA2002	9.8 to 4900 N (1 kgf to 500 kgf)
		Rolling Test	IS 7028 : (Part 5) 2002 (RA2013)	Qualitative
4.	<b>Fibre Board Drum</b>	Drop Test	IS 7028-(Part 4)1987 (RA 2013),	Qualitative
		Stack Load Test	IS 7028- (Part 1)2002 (RA 2011)	Qualitative

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II.	<b>PLASTICS AND PLASTIC PRODUCTS</b>			
1.	<b>Plastic materials &amp; Products</b>	Tensile Strength	IS 2508- 1984 (RA 2013), CL 4.4 Appendix A4	50 kg/cm <sup>2</sup> to 1000 kg/cm <sup>2</sup>
		Breaking Load/Strength	IS 1969-1985 ( Ra 2010)	(0.01 kgf to 500 kgf) 0.1 N to 4903 N
		Elongation at break	IS 2508-1984 (RA 2013) CL 4.5 Appendix A4	100% to 1000 %
		Thickness	IS 2508-1984 (RA 2013) CL 4.2 AppendixA2	0.01 mm to 1.0 mm
2.	<b>Blow Moulded Plastic Containers</b>	Thickness	IS 2798: 1998 Cl 4.5	0.01 mm to 25 mm
		Leak Proofness Test (By Air Pressure)	IMDG Code Vol I (Part 6) Cl 6.1.5.4	Qualitative
		Hydraulic Pressure Test (Hydrostatic Test)	IMDG Code Vol I (Part 6) Cl 6.1.5.5	Qualitative
		Drop Test	IS 6312-1994 (Annexure E)	Qualitative
		Stack Load Test	IS 6312-1994 (Annexure E)	Qualitative
		Brimful Capacity	IS 6312:1994 Annexure B	1 ml to 50 L
		Closure Leakage Test (Keeping on the floor)	IS 6312:1994 Annexure D	Qualitative
		Closure Leakage Test	IS 2798: 1998	Qualitative
3.	<b>Plastic Pallet</b>	Corner Drop Test	IS 6219:1989 Clause 9.2	Qualitative
		Stacking Test	IS 6219:1989 Clause 8.1	Qualitative

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III.	<b>TEXTILE MATERIALS</b>			
1.	<b>Jute &amp; Its Products</b>	Dimension	IS 1954:1990 Clause 8.3.2	40 cm to 150 cm
		Corrected Mass per bag	IS 1964:1981	100 g to 1400 g
		End Picks	IS 1963:1981 IS 1963:1981	75 dm to 120 dm 25 dm to 40 dm
		Breaking Load	IS 1969:1985	40 kgf to 250 kgf
		Seam	IS 9030:1979	10 kgf to 40 kgf
		Moisture Regain	IS 9113:1993 Clause 8.2	5 % to 25%
2.	<b>Fabrics (Woven)</b>	Denier	IS 7703: 1990 (RA2012)	300 Denier to 1200 Denier
		Mesh	IS 1963: 2004 (RA 2014)	3 to 5
		Dimension	IS 11652: 2000 (RA 2010) Clause 6, Annexure A	50 mm to 2000 mm
		Breaking Load	IS 1969: 1985 (RA2010)	(10 kgf/width to 100 kgf/width)98 N to 980 N
		Seam Strength	IS 9030:1979 (RA 2014)	(10 kgf/width to 60 kgf/width) 98 N to 588 N
		Mass of Sack	IS 11652: 2000 (RA 2010), Annexure B	50 g to 200 g
		Drop Test	IS 7028-(Part 4)1987 (RA 2013),	Qualitative
IV.	<b>WOOD AND WOOD PRODUCTS</b>			
1.	<b>Wooden Boxes</b>	Rolling Test	IS 7028 : (Part5) 2002 (RA2013)	Qualitative
		Drop Test	IS 7028- Part 41987 (RA 2013),	Qualitative
		Stack Load Test	IS 7028- Part 12002 (RA 2011),	Qualitative

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2.	Wooden Pallet	Corner Drop Test	IS 6219:1989 Clause 9.2	Qualitative
		Stacking Test	IS 6219:1989 Clause 8.1	Qualitative
<b>V. MECHANICAL PROPERTIES OF METALS</b>				
1.	Metal Drum	Dimension	IS 2552:1989 Clause 5 IS 1783:1993 Clause 5	0.05mm to 1000 mm
		Thickness	IS 2552:1989 Clause 6.2	0.01mm to 25 mm
		Drop Test	IS 2552:1989 Clause 9.2 IS 1783: (Part1)1993 Clause 9.2	Qualitative
		Leakage Test (Air Pressure Test)	IS 2552:1989 Clause 9.1 IS 1783: (Part 1)1993 Clause 9.1	Qualitative
		Hydraulic Pressure Test	IS 1783: (Part 1)1993 Clause 9.3	Qualitative