

Laboratory Indian Institute of Packaging (Northern Regional Centre), Plot No. 21, Functional Industrial Estate, Patparganj, Delhi

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6604 (in lieu of T-3632) **Page 1 of 4**

Validity 14.10.2017 to 13.10.2019 **Last Amended on** 29.11.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I.	PAPER AND PULP			
1.	Paper, Paper Board And Corrugated Fiber Board Boxes	Moisture content	IS 1060 (Part 1)	2% to 25%
		Cobb test	IS : 1060 (Part 1)	1g/m ² to 500g/m ²
		Water proofness test	IS 4006 (Part 1)	1g/m ² to 3000g/m ²
		Grammage/ Substance	IS 1060 (Part 1)	1g/m ² to 1000g/m ²
		Individual grammage/ Substance	IS 7063 (Part IV)	0.01g/m ² to 1000g/m ²
II.	PLASTIC & RESINS			
1.	Plastic Containers, Films, Laminates & Thin sheeting	Migration test (overall)	IS 9845	1mg/dm ² to 300mg/dm ²
		Environmental stress crack resistance E.S.C.R	IS 8747 & IS 6312	Visual
2.	Metal Containers	Salt spray test	ASTM B 117:11	Visual

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MECHANICAL TESTING

I.	PAPER AND PAPER PRODUCTS			
1.	Paper and Paper board	Bursting strength	IS 1060 (Part 1)	0.20kg/cm ² to 14kg/cm ² 0.50kg/cm ² to 40kg/cm ²
		Burst Factor	IS 1060 (Part 1)	10 to 40
		Burst Index	IS 1060 (Part 1)	0.5 to 5 kPam ² /g
		Tensile strength & Elongation	IS 1060 (Part 1)	1kgf to 50kgf & 1% to 60%
		Tensile index	IS 1060 (Part 1)	0.10Nm/g to 70Nm/g
		Breaking length	IS 1060 (Part 1)	1m to 7000m
		Thickness	IS 1060 (Part 1)	0.01mm to 12.7mm
		Ring crush test	IS 4006 (Part 1)	0.8kgf to 500kgf
		Edge crush test	IS 7063 (Part II)	1N/m to 50,000N/m
		Flat crush test	TAPPI - 808	0.8kgf to 500kgf
		Brightness	TAPPI – 452	0.01% to 99.90%
2.	Corrugated Fibre Board Boxes	Internal/ external Dimension	IS 2771(Part 1)	1mm to 1000mm
		Combined internal Dimension	IS 2771(Part 1)	1mm to 3000mm
		No of ply	IS 2771(Part 1)	Visual
		Type of flute	IS 2771(Part 1)	Visual
		Manufacturers joint	IS 2771(Part 1)	Visual
		Flap bend test	IS 2771(Part 1)	Visual
		Joint strength	IS 2771(Part 1)	Visual
		Style of box	IS 6481	Visual
		Compression strength	IS 7028 (Part 6)	0.8 kgf to 5000 kgf.
		Vibration test	IS 7028 (Part12)	Visual
		Inclined impact Test	IS 7028 (Part -3)	Visual
		Rolling test	IS 7028 (Part 5)	Visual
		Drop test	IS 7028 (Part 4)	Visual
Stack load test	IS 7028 (Part1)	Visual		

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II.	PLASTICS & PLASTIC PRODUCTS			
1.	Films/ Laminates/ Thin sheeting	Thickness	IS 2508	1 microns to 1000 microns
		Heat seal strength	ASTM F- 88 M-09	0.8 kgf to 500 kgf
		Tensile strength at break	IS 13360 (Part 5/Sec 1) and (Part 5/Sec 3)	0.8 Kg. to 500 Kg.
		Elongation at break	IS 13360 (Part 5/Sec 1) and (Part 5/Sec 3)	1% to 600%
		Oxygen gas transmission rate tester (mocon)	ASTM D 3985	0.01 cc/m ² to 2000 cc/m ² per day
		Water vapour transmission rate (systech)	ASTM F- 1249	0.002 g/m ² to 18 g/m ² per day (Unmasked)
2.	Blow Moulded Containers	Thickness	IS 2798	0.01mm to 25mm
		Pressure tightness test	IS 6312	Visual
		Hydrostatic test	IS 6312	Visual
		Ink adhesion of Printed containers	IS 2798	Visual
		Brimful capacity	IS 6312	10 ml to 250 Ltr
		Closure leakage test	IS 6312	Visual
		Drop test	IS 6312	Visual
		Stack load test	IS 6312	Visual
3.	Woven Bags (Sacks)	Denier	IS 7703 (Part 1)	100 to 5000 Denier
		Breaking strength	IS 1969 (Part 1)	0.8 kg to 500 kg
		Elongation	IS 1969 (Part 1)	1% to 100%
		Threads per unit length (ends & picks)	IS 1963	Visual
		Seam strength	IS 9030	0.01 kg to 500 kg
		Dimension	IS : 11652 – 2000, (RA2011) CL.6, Annex-A	1mm to 3000 mm
4.	Adhesive Tapes	Adhesion strength of Pressure sensitive tape to metal	IS 8402 - 1987, (RA 2015) CL. 5	0.8 Kgf to 500 Kgf

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		Adhesion strength of pressure sensitive tape to self	IS 8402	0.8 Kgf to 500 Kgf
		Breaking strength	IS 8402	0.8 Kgf to 500 Kgf
		Elongation	IS 8402	1% to 100%
III.	MECHNICAL PROPERTIES OF METALS			
1.	Metal Containers	Leakage test (air pressure)	IS 1783 (Part 1)	Visual
		Hydraulic pressure test	IS 1783 (Part 1)	Visual
		Drop test	IS 1783 (Part 1)	Visual
		Thickness	IS 1783 (Part 1)	0.001mm to 25 mm
		Dimensions	IS 1783 (Part 1)	1 mm to 1000 mm
		Diameter of closure	IS 1783 (Part 1)	0.05 mm to 150 mm
		Type of seam	IS 1783 (Part 1)	Visual