

TEST REPORT



Test Report No. GGN/H(FCM)/23/000931

Dated 2023.05.19

Sample Image(s) (As Received)



Component No. A

TEST REPORT



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Dated 2023.05.19

Applicant / Company Name : Leetha Pack Pvt Ltd.
Address : Major Industrial Estate,
South Kalamassery-Cochin-683104-Kerala-India
Attention / Contact Person : Don Mathews
Tested Sample : Received on 2023.04.28 at 11:30 A.M.
Test Period : 2023.05.05 To 2023.05.19
Article / Sample Description : Paper Boards
Country Of Origin : India

Note: The submitted sample(s) is / are Not Drawn by the Laboratory

NOTE: Unless otherwise agreed upon, Pass or Fail or Statement of compliance verdicts are given based on the measured values without any considerations of measurement uncertainties. Every test method has a measurement uncertainty which has been evaluated by the laboratory and are available on request. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Remarks:

1. Sample(s) is / are tested as on-received basis.
2. Test(s) performed as requested by applicant.
3. Conclusion(s) of the test(s) was drawn as per compliance requirement(s) specified by applicant.

Authorized By

Iswarchandra Yadav
()

Authorized By

Nidhi Sharma
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Please Contact:

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Note: The test report is electronically generated. Hence original signature is not required.

Note: (1) The results relate only to the items tested, (2) The test report shall not be reproduced except in full without the written approval of the laboratory (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same, (5) The testing conditions are followed as per the reported test standard. For additional test conditions apart from the reported test conditions laboratory can be contacted for details

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Summary of Test Result(s)

S. No.	Test(s)	Conclusion (#)
1.	Sensory verification (Transfer of taste and Odour)	Pass
2.	Extractable heavy metals (lead, cadmium, & mercury)	Pass
3.	Pentachlorophenol (PCP) content	Pass
4.	Extractable formaldehyde	Pass
5.	Determination of Transfer of antimicrobial agents	Pass
6.	Microbiological Test (Yeast & Mould count, Total Plate count, E. coli, Salmonella, Total Coliform Count)	Pass
(#) For details regarding specification(s) / regulation(s) based on which compliance is decided, refer test details.		

Material list / List of material(s) (As confirmed by applicant)

Component No.	Component description	Material	Color
A	Paper Board	Paper	White

Sampling plan (As requested by applicant)

S. No.	Test	Component No.
1.	Sensory verification (Transfer of taste and Odour)	A
2.	Extractable heavy metals (lead, cadmium, & mercury)	A
3.	Pentachlorophenol (PCP) content	A
4.	Extractable formaldehyde	A
5.	Determination of Transfer of antimicrobial agents	A
6.	Microbiological Test (Yeast & Mould count, Total Plate count, E. coli, Salmonella, Total Coliform Count)	A

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Test Result(s):

Sensory verification of smell / Odour

Test Specification(s) / Regulation(s): Council of Europe Resolution AP (2002) 1/Policy Statement on paper and board materials and articles intended to come into contact with foodstuffs and Framework regulation (EC) No 1935/2004

Test method adopted: DIN EN 1230-1:2010.

Test condition(s): 23 ± 2°C for 24 Hours

Component No.	Result (Rating)	Compliance Requirement / Limit Max.	Conclusion
A	1	Less than 2.5	Pass

Note:

(Intermediate grades are allowed)

0 = no perceptible difference in odour;

1 = just perceptible difference in odour (still difficult to define);

2 = slight difference in odour;

3 = marked difference in odour;

4 = strong difference in odour.

Sensory verification of taste

Test Specification(s) / Regulation(s): Council of Europe Resolution AP (2002) 1/Policy Statement on paper and board materials and articles intended to come into contact with foodstuffs and Framework regulation (EC) No 1935/2004.

Test method adopted: DIN EN 1230-2:2018.

Simulant(s) used: Distilled water.

Test condition(s): 23 ± 2°C for 48 Hours

Component No.	Result (Rating)	Compliance Requirement / Limit Max.	Conclusion
A	0	Less than 2.5	Pass

Note:

(Intermediate grades are allowed)

0 = no perceptible difference in taste;

1 = just perceptible difference in taste (still difficult to define);

2 = slight difference in taste;

3 = marked difference in taste;

4 = strong difference in taste.

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Extractable (lead, cadmium, mercury)

Test Specification(s) / Regulation(s): With reference to Council of Europe Resolution AP (2002) 1/Policy Statement on paper and board materials and articles intended to come into contact with foodstuffs / Regulation (EC) No. 1935/2004;

Test method: (For Lead and Cadmium) EN 647 (Hot water extract method) followed by analysis with reference to BS EN 12498:2005 / (For Mercury) EN 647 (Hot water extract method) followed by analysis with reference to BS EN 12497:2005;

Equipment(s) used: ICP-MS (Inductively Coupled Plasma – Mass Spectrometer)

Test parameter	Result (mg/dm ²)	Limit of quantification (mg/dm ²)	Maximum permissible limit (mg/ dm ²)	Conclusion
	Component No. A			
Extractable lead (as Pb)	ND	0.002	0.003	Pass
Extractable cadmium (as Cd)	ND	0.002	0.002	Pass
Extractable mercury (as Hg)	ND	0.002	0.002	Pass

Pentachlorophenol (PCP) content

Test Specification(s) / Regulation(s): With reference to Council of Europe Resolution AP (2002) 1/Policy Statement on paper and board materials and articles intended to come into contact with / Regulation (EC) No. 1935/2004)

Test method(s) adopted: EN 15320:2011.

Equipment(s) used: GC – MS (Gas Chromatograph – Mass Spectrometer)

Component No.	Result (mg/kg)	Limit of quantification (mg/kg)	Maximum permissible limit	Conclusion
A	ND	0.05	0.15 mg/kg	Pass

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Extractable Formaldehyde

Test Specification(s) / Regulation(s): With reference to Council of Europe Resolution AP (2002) 1/Policy Statement on paper and board materials and articles intended to come into contact with foodstuffs / Regulation (EC) No. 1935/2004);

Test method(s) adopted: Hot water Extraction as per EN 647 followed by analysis using UV – VIS Spectrophotometer as per BS EN 1541:2001;

Equipment(s) used: Ultra-violet – Visible Spectrophotometer.

Component No.	Result (mg/kg)	Limit of quantification (mg/kg)	Maximum permissible limit	Conclusion
A	ND	10.0	15.0 mg/kg	Pass

Determination of antimicrobial constituents

Test Specification(s) / Regulation(s): BfR recommendation XXXVI (Paper and board for food contact) supplementing German LFGB section 31 (§) (para 1) of Food, Commodities and Feed Code (Food and Feed Code - LFGB);

Test method(s) adopted: EN 1104:2018 (Determination of the transfer of Antimicrobial constituents);

Test organism(s) evaluated: Aspergillus niger NCIM 596 & Bacillus subtilis NCIM 2063;

Component tested: Component No. A

Test organism	Inhibition zone area / Number of positive test specimen	Compliance Requirement / Limit Max.	Conclusion
Aspergillus niger NCIM 596	Absent / 0	Absence in Zone Inhibition	Pass
Bacillus subtilis NCIM 2063	Absent / 0	Absence in Zone Inhibition	Pass

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Microbiological Test			
S. No.	Test parameter	Test Result(s)	Test method(s) adopted
1.	Yeast & Mould count	< 10 cfu/swab	Lab_P_SOP_007 (ISO 21527-2:2008)
2.	Total plate count	< 10 cfu/swab	Lab_P_SOP_007 (ISO 4833-1:2013)
3.	E. Coli	< 10 cfu / swab	Lab_P_SOP_007 (ISO 16649 (Part 2):2001)
4.	Salmonella	Absent / swab	Lab_P_SOP_007 (ISO 6579 -1:2017)
5.	Pseudomonas aeruginosa	< 10 cfu / swab	Lab_P_SOP_007 (ISO 13720:2010)
6.	Total coliform count	< 10 cfu / swab	Lab_P_SOP_007 (ISO 4832:2006)

Abbreviations

“mg/kg” denotes milligram per kilogram & is equivalent to ppm (parts per million); “ND” denotes Not Detected or below limit of quantification; “°C” denotes degree Celsius; “%” denotes percent; Conversion from % to ppm or mg/kg can be done by multiplying with 10,000; “mg/dm²” denotes milligram per square decimetre; “<” denotes less than. “cfu” denotes colony-forming unit

--- END OF THE TEST REPORT ---