

Test Report

Report No.: RGST24111203002

Date: Nov 15, 2024

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Applicant : 2M GROUP LIMITED

Address : FLAT 01A3,10/F CARNIVAL COMM BLDG 18 JAVARD NORTH POINT HONG
KONG, China

Report on the submitted sample(s) said to be:

Sample(s) Name : Hamburger paper

Sample(s) received date : Nov 12, 2024

Testing period : From Nov 12, 2024 to Nov 15, 2024

Test Requested

As requested by the applicant, refer to attached page(s) for details.

To be continued



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	Test Standard	Conclusion
1	German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments -Sensory Test.	Pass
2	German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments and BfR recommendation and European Commission Regulation (EC) No 1935/2004 and Regulation (EU) No 10/2011 and its amendments-Overall Migration.	Pass
3	German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments and BfR recommendation and European Commission Regulation (EC) No 1935/2004 and Regulation (EU) No 10/2011 and its amendments (EU) 2020/1245-Specific Migration of Heavy Metals.	Pass
4	German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments and BfR recommendation -PAHs content .	Pass
5	German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section 30&31 with amendments and BfR Recommendation- Colour Release.	Pass

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Tel: 86-0755-36307999 Website: www.gst-lab.com E-mail: info@gst-lab.com

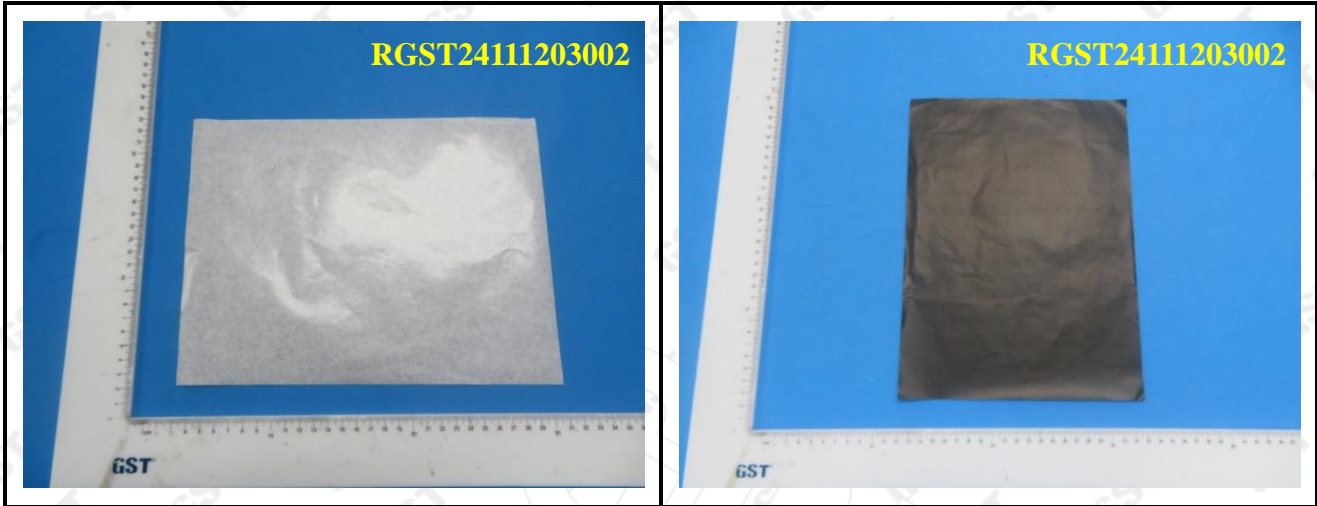
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Photograph(s) of Sample



GST authenticate the photo on original report only

Specimen Description:

No.	Test part(s) name
1	Paper inner layer - white (Material: PE)

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Results:

(1) Sensory Test (Odour and Taste)

Test Method: With reference to DIN 10955:2023

Parameter	Food Simulant	Maximum Permissible Limit	Result(s)
			1
Odour transfer into foodstuff through simulant	0	2.5 Scale	0
Taste transfer into foodstuff through simulant	0		0

Scale: 0 = no perceptible off-odour(or taste transfer);

1 = off-odour(or taste transfer) just perceptible(but still difficult to define);

2 = slight off-odour(or taste transfer);

3 = distinct off-odour(or taste transfer);

4 = strong off-(or taste transfer)

(2) Overall Migration- German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments and BfR recommendation and European Commission Regulation (EC) No 1935/2004 and Regulation (EU) No 10/2011 and its amendments.

Test Method: With reference to EN 1186-1:2002 & EN 1186-3:2022

Test condition: 3% (w/v)acetic acid in aqueous solution, 100°C, 2H

50% (v/v) ethanol in aqueous solution, 100°C, 2H

Simulant Used	Unit	MDL	Maximum Permissible Limit	Result(s)		
				1		
				1 st Migration	2 nd Migration	3 rd Migration
3% (w/v)acetic acid in aqueous solution	mg/dm ²	3	10	N.D.	N.D.	N.D.
50% (v/v) ethanol in aqueous solution	mg/dm ²	3	10	N.D.	N.D.	N.D.

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(3) Specific Migration of Heavy Metal- German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section30&31 with amendments and BfR recommendation and European Commission Regulation (EC) No 1935/2004 and Regulation (EU) No 10/2011 and its amendments (EU) 2020/1245.

Test Method: With reference to EN 13130-1:2004& EN ISO 11885:2009

Test condition: 3%(w/v) acetic acid in aqueous solution, 100°C, 4H

Test Instrument: Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)

Test item(s)	Unit	MDL	Maximum Permissible Limit	Result(s)		
				1		
				1 st Migration	2 nd Migration	3 rd Migration
Aluminium (Al)	mg/kg	0.1	1	N.D.	N.D.	N.D.
Barium (Ba)	mg/kg	0.1	1	N.D.	N.D.	N.D.
Cobalt (Co)	mg/kg	0.01	0.05	N.D.	N.D.	N.D.
Copper (Cu)	mg/kg	0.1	5	N.D.	N.D.	N.D.
Iron (Fe)	mg/kg	1	48	N.D.	N.D.	N.D.
Lithium (Li)	mg/kg	0.1	0.6	N.D.	N.D.	N.D.
Manganese (Mn)	mg/kg	0.1	0.6	N.D.	N.D.	N.D.
Nickel (Ni)	mg/kg	0.01	0.02	N.D.	N.D.	N.D.
Zinc (Zn)	mg/kg	1	5	N.D.	N.D.	N.D.
Antimony(Sb)	mg/kg	0.01	0.04	N.D.	N.D.	N.D.
Lead (Pb)	mg/kg	0.001	0.01	N.D.	N.D.	N.D.
Cadmium (Cd)	mg/kg	0.001	0.002	N.D.	N.D.	N.D.
Arsenic (As)	mg/kg	0.01	0.01	N.D.	N.D.	N.D.
Mercury (Hg)	mg/kg	0.001	0.01	N.D.	N.D.	N.D.
Chromium (Cr)	mg/kg	0.01	0.01	N.D.	N.D.	N.D.
Europium(Eu)	mg/kg	0.01	/	N.D.	N.D.	N.D.
Gadolinium(Gd)	mg/kg	0.01	/	N.D.	N.D.	N.D.
Lanthanum(La)	mg/kg	0.01	/	N.D.	N.D.	N.D.
Terbium(Tb)	mg/kg	0.01	/	N.D.	N.D.	N.D.
Sum of (Europium+ Gadolinium+ Lanthanum+ Terbium)	mg/kg	/	0.05	N.D.	N.D.	N.D.

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(4) PAHs content- German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section30&31 with amendments and BfR recommendation

Test Method: With reference to AfPS-GS-2019-01: PAK

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

No.	Test item(s)	Unit	MDL	Limit	Result(s)
					1
1	Naphthalene*	mg/kg	0.1	1	N.D.
2	Phenanthrene	mg/kg	0.1	/	N.D.
3	Anthracene	mg/kg	0.1	/	N.D.
4	Fluoranthene	mg/kg	0.1	/	N.D.
5	Pyrene	mg/kg	0.1	/	N.D.
6	Benzo (a)anthracene	mg/kg	0.1	0.2	N.D.
7	Chrysene	mg/kg	0.1	0.2	N.D.
8	Benzo (b) fluoranthene	mg/kg	0.1	0.2	N.D.
9	Benzo (k) fluoranthene	mg/kg	0.1	0.2	N.D.
10	Benzo (j) fluoranthene	mg/kg	0.1	0.2	N.D.
11	Benzo (e) pyrene	mg/kg	0.1	0.2	N.D.
12	Benzo (a) pyrene	mg/kg	0.1	0.2	N.D.
13	Indeno (1,2,3-cd) pyrene	mg/kg	0.1	0.2	N.D.
14	Dibenzo (a,h) anthracene	mg/kg	0.1	0.2	N.D.
15	Benzo (g,h,i) perylene	mg/kg	0.1	0.2	N.D.
Sum of phenanthrene, pyrene, anthracene, fluoranthene		mg/kg	/	1	N.D.
Total PAHs		mg/kg	/	1	N.D.

- *Based on its relative volatility against the other 14 PAH (according to EPA), naphthalene represents a parameter difficult to evaluate in close to skin products. Experience of the testing bodies show that loss of naphthalene as well as secondary contamination can be found. The developed naphthalene result will always only show the momentary situation of the test sample at the time of measurement.

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(5) Colour Release-German Food, Articles of Daily Use and Feed Code of September 1 ,2005(LFGB), Section 30&31 with amendments and BfR Recommendation

Test Method: With reference to Kunststoffe im Lebensmittelverkehr, Part B II IX

Test item(s)	Time	Temperature	Maximum Permissible Limit	Results
				1
Colour Releas in 3%(w/v) acetic acid in aqueous solution	4h	100°C	Absent	Absent

Note:

- mg/kg=milligram per kilogram
- mg/dm² = milligram per square decimeter
- N.D. =Not Detected (<MDL)
- MDL=Method Detection Limit
- The results of the third migration test should be used to verify compliance with the migration limits
- Three times the result is decreasing to be considered a stable material
- As specified by client, only above Paper inner layer - white was analyzed.

*** End of Report ***

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