

TEST REPORT

Applicant : DONGYANG FOUNDER PAPER PRODUCT CO., LTD.

Address : WEST TOWN INDUSTRY ZONE, BAIYUN COUNTRY,
DONGYANG CITY, ZHEJIANG, CHINA

Sample description : paper cup

Model no. : 90Z

Product material : PAPER

Country of origin : China

Country of destination : EU, GERMANY

Sample received date : 25 - Jun - 2025

Turn around time : 25 - Jun - 2025 to 08 - Jul - 2025

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Colorants Migration	LFGB, Section 30 and 31 and BfR recommendation	Pass
Optical Brighteners Migration	LFGB, Section 30 and 31 and BfR recommendation	Pass
Sensorial Examination Odour and Taste Test	LFGB Section 30, 31 and BfR recommendation	Pass
Specific Migration of Primary Aromatic Amines	LFGB Section 30, 31 and BfR recommendation	Pass
Extractable Formaldehyde	LFGB, Section 30 and 31, BfR recommendation	Pass
AZO Dyes	LFGB, Section 30 and 31, BfR recommendation	Pass
Extractable Heavy Metals	LFGB, Section 30 and 31, BfR recommendation	Pass
Specific Migration of 3-monochloro-1,2-propanediol	LFGB Section 30 and 31 and BfR recommendation	Pass
Specific Migration of 1,3-dichloro-2-propanol	LFGB Section 30 and 31 and BfR recommendation	Pass
Transfer of antimicrobial constituents	EN 1104:2018 Paper and board intended to come into contact with foodstuffs - Determination of the transfer of antimicrobial constituents	Pass
Extractable Glyoxal	- Regulation (EC) No 1935/2004. - German § 30 and § 31 LFGB. (Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch)	Pass
Specific Migration of Benzophenone	LFGB Section 30 and 31, BfR Recommendations XXXVI	Pass

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Hangzhou) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. Unless otherwise stated from the customer, regulation or the standard specification, Eurofins will apply it in accordance with ILAC G8:09/2019-(binary statement for simple acceptance rule). If you happen to have any comments, please do it by sending email to info.hz@cpt.eurofinscn.com and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Hangzhou) Co., Ltd. If you happen to have any complaints, please do it by sending email to chinacomplaint.hz@cpt.eurofinscn.com and referring to this report number.

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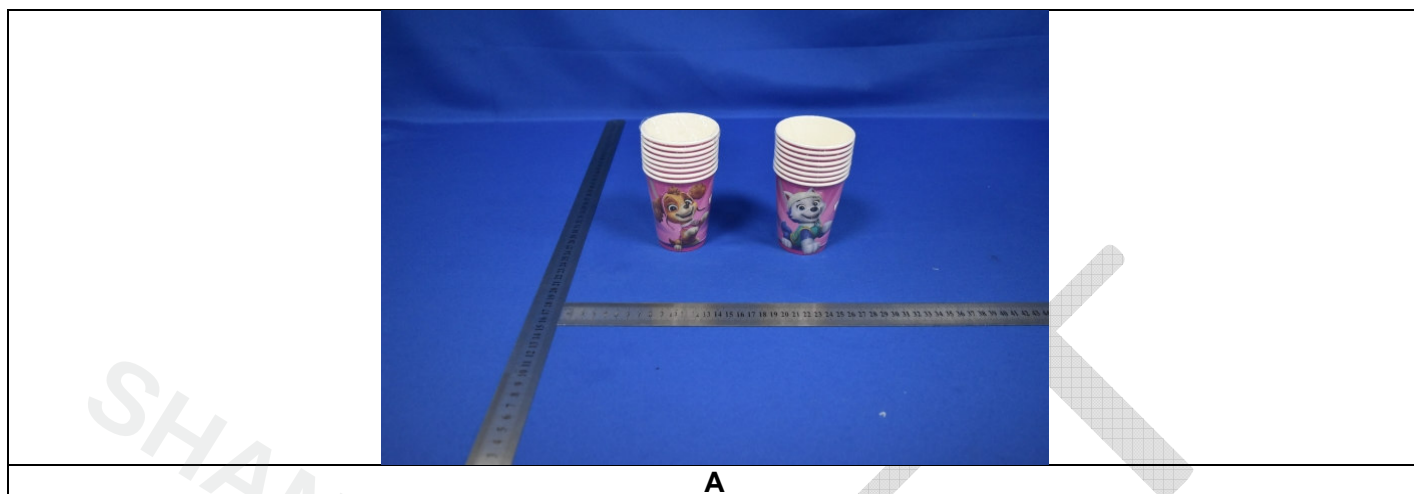
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***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of
Eurofins Product Testing Service (Hangzhou) Co., Ltd

Sara Liu
Quality Manager

SAMPLE PHOTO(S)



A

EFHZ25064420-CG-01

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	Multicolor printed paper cup with transparent plastic film	A

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TO BE CONTINUED

TEST RESULT

Colorants Migration

Test Request: To determine the Colorants Migration of the submitted sample that coming into contact with foodstuffs in accordance with Council of Europe Resolution CM/Res (2020) 9 part II.

Test Method: With reference to EN 646:2018

Simulant Used	Time	Temperature	Unit	Limit	Result
					1
Distilled Water	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
3% Acetic Acid	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
Alkaline Salt Solution	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
Rectified Olive Oil	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5

Remark:

5 = negligible or no change or staining

4 = slightly changed or stained

3 = noticeably changed or stained;

2 = considerably changed or stained;

1 = much changed or stained

Test Condition:

Procedure A - Long duration contact: 24 h at (23 ± 2) °C

TO BE CONTINUED

TEST RESULT

Optical Brighteners Migration

Test Request: To determine the Fluorescent Whiteners Migration of the submitted sample that coming into contact with foodstuffs in accordance with Council of Europe Resolution CM/Res (2020) 9 part II.

Test Method: With reference to EN 648:2018

Simulant Used	Time	Temperature	Unit	Limit	Result
					1
Distilled Water	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
3% Acetic Acid	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
Alkaline Salt Solution	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5
Rectified Olive Oil	24h	(23±2)°C	NO UNIT	Grade 5	Grade 5

Remark:

5 = negligible or no change or staining

4 = slightly changed or stained

3 = noticeably changed or stained

2 = considerably changed or stained

1 = much changed or stained

Test Condition:

Procedure A - Long duration contact: 24 h at (23 ± 2) °C

TO BE CONTINUED

TEST RESULT

Sensorial Examination Odour and Taste Test

Test Request: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 and BfR recommendation.

Test Method: With reference to DIN 10955:2024
No. of panelist: 6

Odour Test Condition 24h at $23 \pm 2^\circ$ C

Taste Test Substance Distilled water

Taste Test Condition 2h at 70° C

Test Item(s)	Limit	Result
		A
Sensorial examination odour (Point scale)	2.5	0.5
Sensorial examination taste (Point scale)	2.5	0.5

Remarks:

Scale evaluation:

0: No perceptible odour/taste

1: Odour/taste just perceptible (still difficult to define)

2: Moderate odour/taste

3: Moderately strong odour/taste

4: Strong odour/taste

TO BE CONTINUED

TEST RESULT

Specific Migration of Primary Aromatic Amines

Test Request: To determine the Specific Migration of Primary Aromatic Amines in accordance with LFGB Section 30, 31 and BfR recommendation.

Test Method: With reference to EN 645:1993, analysis was performed by LC-MS/MS.

Simulant Used: Distilled Water

Test Condition: 23° C, 24h

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
m-Phenylenediamine	108-45-2	mg/kg	Not detected	0.002	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	Not detected	0.002	ND
2-methoxy-5-methylaniline	120-71-8	mg/kg	Not detected	0.002	ND
2-Naphthylamine	91-59-8	mg/kg	Not detected	0.002	ND
3,3'-dichlorobenzidine	91-94-1	mg/kg	Not detected	0.002	ND
o-Dianisidine	119-90-4	mg/kg	Not detected	0.002	ND
o-Tolidine	119-93-7	mg/kg	Not detected	0.002	ND
4,4-Methylene-bis-2-chloroaniline	101-14-4	mg/kg	Not detected	0.002	ND
4,4-Diaminodiphenylmethan	101-77-9	mg/kg	Not detected	0.002	ND
3,3-Dimethyl-4,4-diaminodiphenylmethane	838-88-0	mg/kg	Not detected	0.002	ND
4,4'-Oxydianilin	101-80-4	mg/kg	Not detected	0.002	ND
4,4'-Thiodianilin	139-65-1	mg/kg	Not detected	0.002	ND
4-aminoazobenzene	60-09-3	mg/kg	Not detected	0.002	ND
4-aminobiphenyl	92-67-1	mg/kg	Not detected	0.002	ND
4-Chloroaniline	106-47-8	mg/kg	Not detected	0.002	ND
4-Chlor-o-Toluidin	95-69-2	mg/kg	Not detected	0.002	ND
2,4-diaminoanisole	615-05-4	mg/kg	Not detected	0.002	ND
2,4-diaminotoluene	95-80-7	mg/kg	Not detected	0.002	ND
2-methyl-5-nitroaniline	99-55-8	mg/kg	Not detected	0.002	ND
Benzidin	92-87-5	mg/kg	Not detected	0.002	ND
o-Aminoazotoluene	97-56-3	mg/kg	Not detected	0.002	ND
o-anisidine	90-04-0	mg/kg	Not detected	0.002	ND
o-Toluidin	95-53-4	mg/kg	Not detected	0.002	ND
p-Phenylenediamine	106-50-3	mg/kg	Not detected	0.002	ND
2,4-Dimethylaniline	95-68-1	mg/kg	Not detected	0.002	ND
2,6-Xylidine	87-62-7	mg/kg	Not detected	0.002	ND
Aniline	62-53-3	mg/kg	Not detected	0.002	ND
2,2'-methylenedianiline	6582-52-1	mg/kg	Not detected	0.002	ND
2,4'-methylenedianiline	1208-52-2	mg/kg	Not detected	0.002	ND
Sum of primary aromatic amines	-	mg/kg	Not detected	-	ND

TO BE CONTINUED

TEST RESULT

Remark:

mg/kg = milligram per kilogram

ND = not detected, less than MDL

MDL = method detection limit

Test condition & simulant were specified by client.

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TO BE CONTINUED

TEST RESULT

Extractable Formaldehyde

Test Request: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.
For material: Paper-Extractable formaldehyde

Test Method: With reference to EN 645:1993, EN 1541:2001, followed by analysis using UV-Vis.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
Extractable formaldehyde	50-00-0	mg/dm ²	1.0	0.5	ND

Remarks:

mg/dm² = milligram per square decimeter

MDL = method detection limit

ND = not detected (<MDL)

TO BE CONTINUED

TEST RESULT

AZO Dyes

Test Request: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.
For material: Paper- Azo dyestuff

Test Method: With reference to § 64 LFGB BVL B 82.02-2:2017, analysis was performed by GC-MS and confirmed with HPLC-DAD/LCMSMS

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
2,4-Toluyldiamin	95-80-7	mg/kg	ND	5	ND
2-Naphthylamine	91-59-8	mg/kg	ND	5	ND
3,3-Dimethyl-4,4-diaminodiphenylmethane	838-88-0	mg/kg	ND	5	ND
4,4-Diaminodiphenylmethan	101-77-9	mg/kg	ND	5	ND
4,4'-Oxydianilin	101-80-4	mg/kg	ND	5	ND
4,4'-Thiodianilin	139-65-1	mg/kg	ND	5	ND
Benzidin	92-87-5	mg/kg	ND	5	ND
o-Toluidin	95-53-4	mg/kg	ND	5	ND
5-Nitro-o-toluidine	99-55-8	mg/kg	ND	5	ND
2,4-Diaminoanisole	615-05-4	mg/kg	ND	5	ND
4,4-Methylene-bis-2-chloroaniline	101-14-4	mg/kg	ND	5	ND
o-Aminoazotoluene	97-56-3	mg/kg	ND	5	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	ND	5	ND
4-aminobiphenyl	92-67-1	mg/kg	ND	5	ND
o-Anisidine	90-04-0	mg/kg	ND	5	ND
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	5	ND
4-Chloroaniline	106-47-8	mg/kg	ND	5	ND
3,3'-dimethoxybenzidine	119-90-4	mg/kg	ND	5	ND
3,3'-dimethylbenzidine	119-93-7	mg/kg	ND	5	ND
4-aminoazobenzene	60-09-3	mg/kg	ND	5	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	ND	5	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	ND	5	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

1: The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.

2: 4-Amino-azobenzene(CAS No.:60-09-3) is reduced to aniline and 1,4-phenylenediamine.

TO BE CONTINUED

TEST RESULT

Extractable Heavy Metals

Test Request: To determine Extractable Heavy Metals in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, BfR recommendation

Test Method: With reference to EN 645:1993 for sample preparation, analysis was performed by ICP-MS.

Simulant Used: Distilled Water

Test Condition: 23° C, 24h

Test Item(s)	Unit	Limit	MDL	Result
				1
Lead (Pb)	µg/l	10	2	ND
Cadmium (Cd)	µg/l	5	2	ND
Aluminum (Al)	mg/kg	1	0.5	ND
Chromium (III) (Cr III)	mg/dm ²	0.004	0.002	ND
Chromium (VI) (Cr VI)	mg/dm ²	ND	0.002	ND

Remark:

mg/kg = milligram per kilogram

mg/dm² = milligram per square decimetre

µ g/l = micrograms per liter

ND = not detected, less than MDL

MDL = method detection limit

TO BE CONTINUED

TEST RESULT

Specific Migration of 3-monochloro-1,2-propanediol

Test Request: To determine the Specific Migration of 3-monochloro-1,2-propanediol in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) Section 30 and 31 and BfR recommendation.

Test Method: With reference to EN 645:1993, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
3-MCPD (MonoChloroPropaneDiol)	96-24-2	µg/l	12	2	ND

Remarks:

Simulant Used: Distilled water

Test Condition: 24 hours at 23° C

µg/L = microgram per liter

ND = not detected, less than MDL

MDL = method detection limit

Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of 1,3-dichloro-2-propanol

Test Request: To determine the Specific Migration of 1,3-dichloro-2-propanol in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) Section 30 and 31 and BfR recommendation.

Test Method: With reference to EN 645:1993, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
1,3-Dichlor-2-propanol	96-23-1	µg/l	Not Detectable	2	ND

Remarks:

Simulant Used: Distilled water

Test Condition: 24 hours at 23° C

µg/L = microgram per liter

ND = not detected, less than MDL

MDL = method detection limit

Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Transfer of antimicrobial constituents

Test Requirement: The requirement is with reference to EDQM 2021 Part II. Technical guide on paper and board used in food contact materials and articles.

Test Method: Refer to EN 1104:2018 Paper and board intended to come into contact with foodstuffs - Determination of the transfer of antimicrobial constituents.

Test specimen size (mm) : D=10mm circular
Incubation temperature : 30° C (for Bacillus subtilis)
: 23° C (for Aspergillus niger)
Incubation period : 3 days (for Bacillus subtilis)
: 5 days (for Aspergillus niger)

Test microorganism	Number of positive result	Observation result	Requirement	Rating
		1		
Bacillus subtilis (ATCC 6633)	0 of 9 test pieces	Absence of inhibition	Absence of inhibition	Pass
Aspergillus niger (ATCC 6275)	0 of 9 test pieces	Absence of inhibition		Pass

Remark:

1. Sample received condition: sample in closed plastic bag.

The test item is testing in Eurofins Internal laboratory.

TO BE CONTINUED

TEST RESULT

Extractable Glyoxal

Test method : EN 645:1993

Limit according to the recommendation of the BfR (German Institute for Risk Assessment) Part XXXVI
“Paper and board for food contact.”

Test Sample		1	Detection limit	Limit
Parameter	Unit	Test result		
Glyoxal	mg/dm ²	N.D.	1.5	1.5

Note: - 1 mg/dm² = milligram per square decimetre
- N.D. = Not Detected

The test item is testing in Eurofins Internal laboratory.

TO BE CONTINUED

TEST RESULT

Specific Migration of Benzophenone

Test Request: Specific migration of benzophenone as specified in German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, BfR Recommendations XXXVI for Paper and Board.

Test Method: With reference to EN 13130-1:2004 for sample preparation, analysis was performed by LC-MS.

Simulant Used: Acetic Acid 3%

Test Condition: 2h at 70° C

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
Benzophenone	119-61-9	mg/kg	0.6	0.1	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Test condition & simulant were specified by client.

The test item is testing in Eurofins Internal laboratory.*****END OF THE REPORT*****