



SUBJECT Chemical Test

TEST LOCATION TÜV SÜD China

TÜV SÜD Products Testing (Shanghai) Co., Ltd.
B-3/4, No.1999 Du Hui Road, Minhang District
Shanghai 201108, P.R. China

CLIENT NAME WEIFANG DERANO PLASTIC PRODUCTS CO., LTD

CLIENT ADDRESS The West of Wutu village, Wutu sub-district Office,Changle County,Weifang,
Shandong,China

TEST PERIOD 28-Dec-2022~13-Jan-2023

RESULT SUMMARY

The tested items **complied with** European COMMISSION REGULATION (EU) No 2020/1245, (EU) No 10/2011 and its amendments on plastic materials and articles intended to come into contact with food.

- Overall migration test
- Specific Migration of Total Primary Aromatic Amine
- Specific Migration of 22 Primary Aromatic Amine
- Specific Migration of Heavy metal

PASS
PASS
PASS
PASS

Prepared By

Wei Jun

(Wei Jun)
Report Drafter

Authorized By



Authorized Signatory

Note: (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested.(3) The test report shall not be reproduced except in full without the written approval of the laboratory.(4) Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

RECEIPT DATE / TEST DATE

28-Dec-2022/ 28-Dec-2022

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED

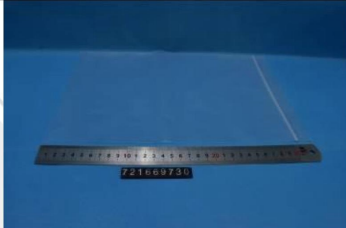
BY/ ON BEHALF OF THE CLIENTS AS

Sample Name: GRIP SEAL BAG

Sample Specification:

Batch No./Date:

Manufacturer: /

SAMPLE NO.	DESCRIPTION	PHOTOGRAPH
721669730	Transparent plastic	

TEST RESULT(S)

Note: The migration results in this report were tested and expressed based on single use articles

- Overall Migration Test
 - Test method: With reference to EN 1186-6:2002/ EN 1186-7:2002
 - Migration ratio(S/V): 10dm²/L

Simulant (s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]
10% Ethanol	40°C for 10 days	<3.0	10
Olive oil	40°C for 10 days	<3.0	10

- Specific migration of Total Primary Aromatic Amine
 - Test method: With reference to EN13130-1:2004, followed by Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II,XXI
 - Test condition: 3% Acetic acid, 60°C for 10 days
 - Migration ratio(S/V): 6dm²/L

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
Total Primary Aromatic Amine	<0.01	0.01

3. Specific migration of 22 Primary Aromatic Amine
- Test method: With reference to EN 13130-1:2004, followed by LC/MS/MS
 - Test condition: 3% Acetic acid, 60°C for 10 days
 - Migration ratio(S/V): 6dm²/L

Test Item(s)	CAS No.	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
4-aminobiphenyl	92-67-1	ND	ND(DL:0.002)
benzidine	92-87-5	ND	ND(DL:0.002)
4-chloro-o-toluidine	95-69-2	ND	ND(DL:0.002)
2-naphthylamine	91-59-8	ND	ND(DL:0.002)
o-aminoazotoluene	97-56-3	ND	ND(DL:0.002)
5-nitro-o-toluidine	99-55-8	ND	ND(DL:0.002)
4-chloroaniline	106-47-8	ND	ND(DL:0.002)
4-methoxy-m-phenylenediamine	615-05-4	ND	ND(DL:0.002)
4,4'-diaminodiphenylmethane	101-77-9	ND	ND(DL:0.002)
3,3'-dichlorobenzidine	91-94-1	ND	ND(DL:0.002)
3,3'-dimethoxybenzidine	119-90-4	ND	ND(DL:0.002)
3,3'-dimethylbenzidine	119-93-7	ND	ND(DL:0.002)
4,4'-methylenedi-o-toluidine	838-88-0	ND	ND(DL:0.002)
p-cresidine	120-71-8	ND	ND(DL:0.002)
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	ND(DL:0.002)
4,4'-oxydianiline	101-80-4	ND	ND(DL:0.002)
4,4'-thiodianiline	139-65-1	ND	ND(DL:0.002)
o-toluidine	95-53-4	ND	ND(DL:0.002)
4-methyl-m-phenylenediamine	95-80-7	ND	ND(DL:0.002)
2,4,5-trimethylaniline	137-17-7	ND	ND(DL:0.002)
o-anisidine	60-09-3	ND	ND(DL:0.002)
4-amino azobenzene	90-04-0	ND	ND(DL:0.002)

Note: 1. ND denotes Not Detected and less than Detection Limit.

4. Specific migration of Heavy metals

- Test method: With reference to EN13130-1:2004, followed by ICP-MS.
 - Test condition: 3% Acetic acid, 60°C for 10 days
- Migration ratio(S/V): 6dm²/L

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
Lithium (Li)	<0.1	0.6
Aluminium (Al)	<0.1	1
Chromium (Cr)	ND	ND (DL:0.01)
Manganese (Mn)	<0.1	0.6
Iron (Fe)	<5	48
Cobalt (Co)	<0.01	0.05
Nickel (Ni)	<0.01	0.02
Copper (Cu)	<1	5
Zinc (Zn)	<1	5
Arsenic (As)	ND	ND (DL:0.01)
Cadmium (Cd)	ND	ND (DL:0.002)
Antimony (Sb)	<0.01	0.04
Barium (Ba)	<0.1	1
Mercury (Hg)	ND	ND (DL:0.01)
Lead (Pb)	ND	ND (DL:0.01)
Lanthanum (La)	<0.01	0.05
Europium (Eu)	<0.01	0.05
Gadolinium (Gd)	<0.01	0.05
Terbium (Tb)	<0.01	0.05
Sum of [La, Eu, Gd, Tb]	<0.04	0.05

- Note: 1. DL denotes Detection Limit
2. ND denotes Not Detected and less than Detection Limit.

Note: This report is for internal use only such as internal scientific research ,education, quality control, product R&D.

-END OF THE TEST REPORT-