

Test Report

No.: 70.431.21.17492.01

Dated: 2022-02-14



Greater China

Applicant: POLYCONCEPT GBS
Address: 4/F., HONGQIAO RONGGUANG BLDG., 11 CHANGSHUN ROAD SHANGHAI,
200051, PR CHINA
Product Name: 4 can cooler sling
Model No.: 12061901 – white / 12061921 – red
12061953 – royal / 12061990 – black
PO/Order No.: #651248
Manufacturer: 10593
Factory Code: 3581
Country of Origin: China
Country of Destination: EU
Receipt Date of Sample: 2021-12-22
Date of Testing: 2021-12-22 to 2022-02-14
Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
Test Result: Refer to the data listed in following pages

Test Item	Conclusion
1. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
2. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
3. Azocolourants Content Requirement in Annex XVII, Item 43 of the REACH Regulation(EC) No 1907/2006 with its Amendment	Pass
4. Azo Dyes Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
5. Total Lead Content Requirement in Annex XVII, Item 63 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
6. Dimethylformamide, N,N-dimethylacetamide (DMAC), N-Methyl-2-pyrrolidone Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
7. Formaldehyde Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
8. Dyestuff Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
9. Phthalates content in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
10. Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs) Content - European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)	Pass
11. Benzene Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass

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Test Item	Conclusion
12. 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320), 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328), 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) and 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) Content - in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)	<0.1%(w/w)
13. Tris(2-chloroethyl) phosphate (TCEP) Content - in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)	<0.1%(w/w)
14. Extractable heavy metals content in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
15. Total Bisphenol A (BPA) Content	Pass*
16. Quinoline Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
17. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Overall Migration	Pass
18. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Heavy Metals	Pass
19. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Bisphenol A	Pass
20. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Special Migration of Phthalates	Pass
21. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine	Pass
22. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine (29)	Pass
23. Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)	Pass*
24. Germany-German Food & Feed Acts LFGB Section 31 and BfR Recommendation-Sensory Test	Pass
25. EU-Regulation (EU) No. 10/2011-Phthalates Content	Pass

Remarks: 1. MDL = Method Detection Limit
2. ND = Not Detected (<MDL)
3. <= Less than
4. 1 mg/kg = 1 ppm = 0.0001%
5. *= Conclusion was drawn according to client's specification
6. mg/dm² = milligram per square decimeter
7. The migration results in this report were tested and expressed based on repeated use articles.
8. The testing approach, the testing methods, and the reported results in this report demonstrate compliance or non-compliance to the client's requirements which were mutually agreed at the contract review and stipulated in the quotation. The testing approach, the testing methods, and the reported results may not or only partially fulfil the associated requirements of the applicable regulations.

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Note:

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- (2) The results relate only to the Items tested.
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- (4) **Disclaimer Measurement Uncertainty:**
Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.
Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Description of the Tested Subject

Sample	Description	Photo
001	4 can cooler sling / 12061901 – white	
002	4 can cooler sling / 12061921 – red	
003	4 can cooler sling / 12061953 – royal	
004	4 can cooler sling / 12061990 – black	



T. No	Sample	Description
T1	005	Silvery PEVA lining (001~004)
T2	006	White fabric body with backing (001)
T3	007	Red fabric body with backing (002)
T4	008	Royal blue fabric body with backing (003)
T5	009	Black fabric body with backing (004)
T6	010	Black plastic ring on band (001~004)
T7	011	Black plastic zipper teeth (001~004)
T8	012	Black fabric webbing band (001~004)
T9	013	Black fabric zipper tape (001~004)
T10	014	Black rope (001~004)
T11	015	Black non-woven fabric binding (001~004)
T12	016	Black metal zipper head/slider (001~004)
T13	017	White foam (inside, 001~004)



Test Results

1. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to AfPS GS 2019:01, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					006+007	008+009
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	<1	ND	ND
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	<1	ND	ND
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	<1	ND	ND
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	<1	ND	ND
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	<1	ND	ND
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	<1	ND	ND
Chrysene (CHR)	218-01-9	mg/kg	0.1	<1	ND	ND
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	<1	ND	ND
Conclusion					Pass	Pass

2. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments

Test with reference to Acid digestion and EN 1122:2001 Method B, determination by ICP-OES/ICP-MS.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
005	mg/kg	5	<100	<5.0	Pass
006+007	mg/kg	5	<100	<5.0	Pass
008+009	mg/kg	5	<100	<5.0	Pass
010+011	mg/kg	5	<100	<5.0	Pass
012+013	mg/kg	5	<100	<5.0	Pass
014+015	mg/kg	5	<100	<5.0	Pass
017	mg/kg	5	<100	<5.0	Pass

3. Azocolourants Content Requirement in Annex XVII, Item 43 of the REACH Regulation(EC) No 1907/2006 with its Amendment

Test with reference to EN ISO 14362-1:2017, determination by GC-MS/HPLC.

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
					006+007	008+009+012
1	4-aminobiphenyl	92-67-1	5.0	<30	<5.0	<5.0
2	Benzidine	92-87-5	5.0	<30	<5.0	<5.0
3	4-chloro-o-toluidine	95-69-2	5.0	<30	<5.0	<5.0
4	2-naphthylamine	91-59-8	5.0	<30	<5.0	<5.0
5	o-aminoazotoluene	97-56-3	5.0	<30	<5.0	<5.0
6	5-nitro-o-toluidine	99-55-8	5.0	<30	<5.0	<5.0
7	4-chloroaniline	106-47-8	5.0	<30	<5.0	<5.0
8	2,4-diaminoanisole	615-05-4	5.0	<30	<5.0	<5.0
9	4,4'-diaminodiphenylmethane	101-77-9	5.0	<30	<5.0	<5.0
10	3,3'-dichlorobenzidine	91-94-1	5.0	<30	<5.0	<5.0
11	3,3'-Dimethoxybenzidine	119-90-4	5.0	<30	<5.0	<5.0
12	3,3'-dimethylbenzidine	119-93-7	5.0	<30	<5.0	<5.0
13	4,4'-methylenedi-o-toluidine	838-88-0	5.0	<30	<5.0	<5.0
14	p-cresidine	120-71-8	5.0	<30	<5.0	<5.0
15	4,4'-methylene-bis-(2-chloro-aniline)	101-14-4	5.0	<30	<5.0	<5.0
16	4,4'-oxydianiline	101-80-4	5.0	<30	<5.0	<5.0
17	4,4'-thiodianiline	139-65-1	5.0	<30	<5.0	<5.0
18	o-toluidine	95-53-4	5.0	<30	<5.0	<5.0
19	2,4-toluenediamine	95-80-7	5.0	<30	<5.0	<5.0
20	2,4,5-trimethylaniline	137-17-7	5.0	<30	<5.0	<5.0
21	2-methoxyaniline	90-04-0	5.0	<30	<5.0	<5.0
22	2,4-xylidine	95-68-1	5.0	<30	<5.0	<5.0
23	2,6-xylidine	87-62-7	5.0	<30	<5.0	<5.0
24	4-aminoazobenzene	60-09-3	5.0	<30	<5.0	<5.0
Conclusion					Pass	Pass

Interpretation of test results:

- (1) In the case of the measured value per amine component ≤ 30 mg/kg and according to the analysis carried out, the azo colourants banned under the Annex XVII of Regulation (EC) No. 1907/2006, REACH are not detected in the article submitted.
- (2) Banned AZO dyes in accordance to REACH regulation (EC) No. 1907/2006 and Amendment No. 552/2009 Annex XVII Item 43 (formerly known as 2002/61/EC)

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4. Azo Dyes Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to EN ISO 14362-1:2017, determination by GC-MS/HPLC.

Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]	
				006+007	008+009+012
4-Chloro-o-toluidinium chloride	3165-93-3	5.0	<30	<5.0	<5.0
2-Naphthylammoniumacetate	553-00-4	5.0	<30	<5.0	<5.0
4-Methoxy-m-phenylene diammonium sulphate	39156-41-7	5.0	<30	<5.0	<5.0
2,4,5-Trimethylaniline hydrochloride	21436-97-5	5.0	<30	<5.0	<5.0
Conclusion				Pass	Pass

5. Total Lead Content Requirement in Annex XVII, Item 63 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to in house method, determination by ICP-OES/ICP-MS.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
005	mg/kg	10.0	500	<10.0	Pass
006+007	mg/kg	10.0	500	<10.0	Pass
008+009	mg/kg	10.0	500	<10.0	Pass
010+011	mg/kg	10.0	500	<10.0	Pass
012+013	mg/kg	10.0	500	<10.0	Pass
014+015	mg/kg	10.0	500	<10.0	Pass
016	mg/kg	10.0	500	21.4	Pass

6. Dimethylformamide, N,N-dimethylacetamide (DMAC), N-Methyl-2-pyrrolidone Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to DIN CEN ISO/TS 16189:2013, determination by GC-MS.

Compound	CAS No.	Unit	MDL	Limit	Result
					006+007
Dimethylformamide	68-12-2	mg/kg	10	<3000	<10
N,N-dimethylacetamide (DMAC)	127-19-5	mg/kg	10	<3000	<10
N-Methyl-2-pyrrolidone	--	mg/kg	10	<3000	<10
Conclusion					Pass

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Compound	CAS No.	Unit	MDL	Limit	Result
					008+009
Dimethylformamide	68-12-2	mg/kg	10	<3000	<10
N,N-dimethylacetamide (DMAC)	127-19-5	mg/kg	10	<3000	<10
N-Methyl-2-pyrrolidone	--	mg/kg	10	<3000	<10
Conclusion					Pass

7. Formaldehyde Content Requirement in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to EN ISO 14184-1:2011, determination by UV-Vis.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
006+007	mg/kg	16	<300	<16	Pass
008+009	mg/kg	16	<300	<16	Pass

8. Dyestuff Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments

Test with reference to DIN 54231:2005, determination by LC-MS.

Compounds	CAS No	Unit	MDL	Limit	Results	
					006+007	008+009
C.I. Basic Red 9	569-61-9	mg/kg	7.5	<50	<7.5	<7.5
C.I. Disperse Blue 1	2475-45-8	mg/kg	7.5	<50	<7.5	<7.5
Basic Violet 3	548-62-9	mg/kg	7.5	<50	<7.5	<7.5
Conclusion					Pass	Pass

9. Phthalates content in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to EN ISO 14389:2014, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					006+007	008+009
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	mg/kg	50	-	95	72
Dibutyl phthalate (DBP)	84-74-2	mg/kg	50	-	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	mg/kg	50	-	ND	ND
Bis-(2-methoxyethyl)-phthalate (DMEP)	117-82-8	mg/kg	50	-	ND	ND
Diisobutylphthalate, (DIBP)	84-69-5	mg/kg	50	-	ND	ND
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	mg/kg	50	-	ND	ND
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	mg/kg	50	-	ND	ND
Di-n-hexyl phthalate (DnHP/DHP/DHEXP)	84-75-3	mg/kg	50	-	ND	ND
1,2-Benzenedicarboxylic acid, dipentylester branched and linear	84777-06-0	mg/kg	50	-	ND	ND
Diisopentylphthalate (DIPP)	605-50-5	mg/kg	50	-	ND	ND
N-Pentyl-isopentylphthalate	776297-69-9	mg/kg	50	-	ND	ND
Diamyl phthalate/Dipentyl phthalate (DPP/DPENP)	131-18-0	mg/kg	50	-	ND	ND
1,2-Benzenedicarboxylic acid, dihexylester, branched and linear	68515-50-4	mg/kg	50	-	ND	ND
Dicyclohexyl phthalate (DCHP)	84-61-7	mg/kg	50	-	ND	ND
Sum of detected phthalates	-	mg/kg	50	<1000	95	72
Conclusion					Pass	Pass

- 10. Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs) Content - European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)**
 Test with reference to in house method, determination by GC-MS-NCI.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					006+007	008+009
SCCP	85535-84-8	mg/kg	100	<1500	<100	<100
Conclusion					Pass	Pass

- 11. Benzene Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments**
 Test with reference to in house method, determination by HS-GC-MS.

Compound	CAS No.	Unit	MDL	Limit	Result
					006+007
Benzene	71-43-2	mg/kg	1	5	<1
Conclusion					Pass

Compound	CAS No.	Unit	MDL	Limit	Result
					008+009
Benzene	71-43-2	mg/kg	1	5	<1
Conclusion					Pass

12. 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320), 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328), 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) and 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) Content - in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)

Test with reference to in house method and determination by LC-MS.

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					006+007+008+009+010+012+014
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	%	0.01	<0.1	<0.01
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	%	0.01	<0.1	<0.01
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	%	0.01	<0.1	<0.01
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	%	0.01	<0.1	<0.01

13. Tris(2-chloroethyl) phosphate (TCEP) Content - in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)

Test with reference to in house method and determination by LC-MS.

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					006+007+008+009
Tris (2-chloroethyl) phosphate	115-96-8	%	0.01	<0.1	<0.01

14. Extractable heavy metals content in Annex XVII, Item 72 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to EN 16711-2:2015, determination by ICP-OES/ICP-MS.

Test Item	Limit [mg/kg]	MDL [mg/kg]	Result(s) [mg/kg]	
			006+007	008+009
Cadmium As (Cd)	1	0.1	<0.1	<0.1
Arsenic As (As)	1	0.2	<0.2	<0.2
Chromium VI (Cr VI)*	1	0.5	<0.5	<0.5
Lead As (Pb)	1	0.2	<0.2	<0.2
Conclusion			Pass	Pass

Remark: 1. * = Chromium VI was determined by screening of chromium

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15. Total Bisphenol A (BPA) Content

With reference to in-house method, determination by LC-MS-MS.

Compound	CAS No.	Unit	MDL	Limit	Result
					005
Bisphenol A	80-05-7	mg/kg	0.1	<0.1	<0.1
Conclusion					Pass

Remark: 1. Limit was according to client's requirement

16. Quinoline Content Requirement in Annex XVII, Item 72 of the REACH Regulation(EC) No 1907/2006 with its Amendments

Test with reference to DIN 54231:2005, determination by LC-MS.

Compound	CAS No.	Unit	MDL	Limit	Result
					006+007
Quinoline	91-22-5	mg/kg	10	<50	<10
Conclusion					Pass

Compound	CAS No.	Unit	MDL	Limit	Result
					008+009
Quinoline	91-22-5	mg/kg	10	<50	<10
Conclusion					Pass

17. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Overall Migration

- With reference to EN1186-1:2002 for selection of test methods;
EN1186-13: 2002 Method B -adsorption by modified polyphenylene oxide;
- Sample 005 Migration ratio: 5.5g/1.37dm²

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm ²]			Maximum Permissible Limit [mg/dm ²]	Conclusion
		005 1 st Migration	005 2 nd Migration	005 3 rd Migration		
MPPO	40°C for 10 days	<3.0	<3.0	<3.0	10	Pass

18. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Heavy Metals

- With reference to EN 13130-1:2004, followed by ICP-MS.
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

Test Item(s)	MDL [mg/kg]	Result(s) [mg/kg]			Limit [mg/kg]	Conclusion
		005 1 st Migration	005 2 nd Migration	005 3 rd Migration		
Iron (Fe)	1.0	ND	ND	ND	48	Pass
Zinc (Zn)	1.0	ND	ND	ND	5	Pass
Copper (Cu)	0.5	ND	ND	ND	5	Pass
Manganese (Mn)	0.05	ND	ND	ND	0.6	Pass
Cobalt (Co)	0.05	ND	ND	ND	0.05	Pass
Barium (Ba)	0.1	ND	ND	ND	1	Pass
Lithium (Li)	0.1	ND	ND	ND	0.6	Pass
Aluminium (Al)	0.1	ND	ND	ND	1	Pass
Nickel (Ni)	0.01	ND	ND	ND	0.02	Pass
Antimony (Sb)	0.01	ND	ND	ND	0.04	Pass
Arsenic (As)	0.01	ND	ND	ND	0.01	Pass
Cadmium (Cd)	0.002	ND	ND	ND	0.002	Pass
Chromium (Cr)	0.01	ND	ND	ND	0.01	Pass
Lead (Pb)	0.01	ND	ND	ND	0.01	Pass
Mercury (Hg)	0.01	ND	ND	ND	0.01	Pass
Europium	0.01	ND	ND	ND	Sum 0.05	Pass
Gadolinium	0.01	ND	ND	ND		Pass
Lanthanum	0.01	ND	ND	ND		Pass
Terbium	0.01	ND	ND	ND		Pass

19. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Bisphenol A

- With reference to EN 13130-1:2004, followed by LC/MS/MS
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	005			
Specific migration of BPA - 1 st Migration	ND	0.02	0.05	Pass
Specific migration of BPA - 2 nd Migration	ND	0.02	0.05	Pass
Specific migration of BPA - 3 rd Migration	ND	0.02	0.05	Pass

20. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Special Migration of Phthalates

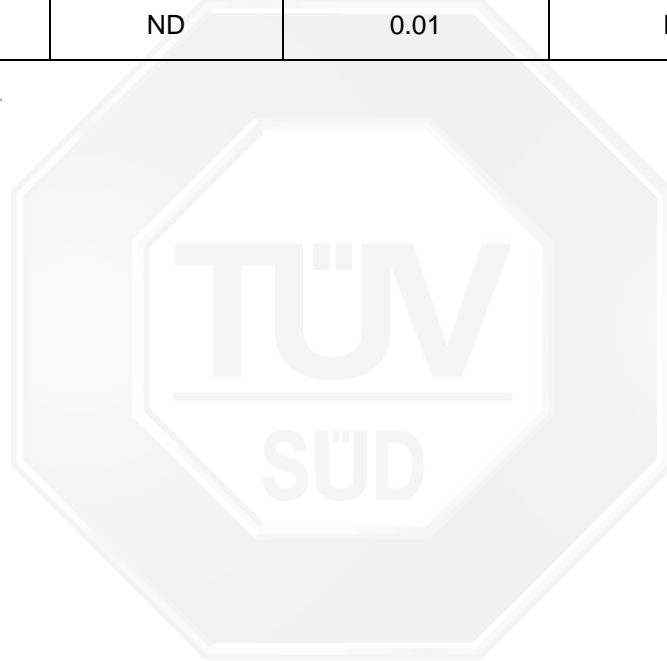
- With reference to EN 13130-1:2004, followed by GC-MS
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

Test Items	CAS No.	MDL [mg/kg]	Maximum Permissible Limit [mg/kg]	Test Result [mg/kg]			Conclusion
				005 1 st Migration	005 2 nd Migration	005 3 rd Migration	
Benzylbutyl Phthalate (BBP)	85-68-7	0.5	30	<0.5	<0.5	<0.5	Pass
Dibutyl Phthalate (DBP)	84-74-2	0.1	0.3	<0.1	<0.1	<0.1	Pass
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	0.5	1.5	<0.5	<0.5	<0.5	Pass
Diisononyl Phthalate (DINP)	68515-48-0	0.5	Total 9	<0.5	<0.5	<0.5	Pass
Diisodecyl phthalate (DIDP)	26761-40-0	0.5		<0.5	<0.5	<0.5	
Adipic acid, bis(2-ethylhexyl) Ester (DEHA)	103-23-1	0.5	18	<0.5	<0.5	<0.5	Pass
Diallyl phthalate (DAP)	131-17-9	0.01	0.01	<0.01	<0.01	<0.01	Pass

21. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Primary Aromatic Amine

- With reference to EN 13130-1:2004, followed by Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II,XXI
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	005			
Specific migration of primary aromatic amines – 1 st Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines – 2 nd Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines – 3 rd Migration	ND	0.01	ND	Pass



22. EU- Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Primary Aromatic Amine (29)

- With reference to EN 13130-1:2004.
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]		
					005 1 st Migration	005 2 nd Migration	005 3 rd Migration
1	4-Aminobiphenyl	92-67-1	0.002	0.002	ND	ND	ND
2	4,4'-Benzidine	92-87-5	0.002	0.002	ND	ND	ND
3	4-Chloro-2-methylaniline	95-69-2	0.002	0.002	ND	ND	ND
4	2-Naphthylamine	91-59-8	0.002	0.002	ND	ND	ND
5	o-Aminoazotoluene	97-56-3	0.002	0.002	ND	ND	ND
6	5-Nitro-o-toluidine	99-55-8	0.002	0.002	ND	ND	ND
7	4-Chloroaniline	106-47-8	0.002	0.002	ND	ND	ND
8	4-Methoxy-1,3-phenylenediamine	615-05-4	0.002	0.002	ND	ND	ND
9	Bis-(4-aminophenyl) methane	101-77-9	0.002	0.002	ND	ND	ND
10	3,3'-Dichlorobenzidine	91-94-1	0.002	0.002	ND	ND	ND
11	3,3'-Dimethoxybenzidine	119-90-4	0.002	0.002	ND	ND	ND
12	o-Tolidine	119-93-7	0.002	0.002	ND	ND	ND
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.002	0.002	ND	ND	ND
14	2-Methoxy-5-methylaniline	120-71-8	0.002	0.002	ND	ND	ND
15	4,4'-Methylene bis(o-chloroaniline)	101-14-4	0.002	0.002	ND	ND	ND
16	4,4'-Oxydianiline	101-80-4	0.002	0.002	ND	ND	ND
17	4,4'-Thiodianiline	139-65-1	0.002	0.002	ND	ND	ND
18	o-Toluidine	95-53-4	0.002	0.002	ND	ND	ND
19	2,4-Diaminotoluene	95-80-7	0.002	0.002	ND	ND	ND
20	2,4,5-Trimethylaniline	137-17-7	0.002	0.002	ND	ND	ND
21	o-Anisidine	90-04-0	0.002	0.002	ND	ND	ND
22	4-Amino-azobenzene	60-09-3	0.002	0.002	ND	ND	ND
23	1,3-Phenylenediamine	108-45-2	0.002	0.002	ND	ND	ND
24	2,4-Dimethylaniline	95-68-1	0.002	0.002	ND	ND	ND
25	2,6-Dimethylaniline	87-62-7	0.002	0.002	ND	ND	ND
26	Aniline	62-53-3	0.002	0.002	ND	ND	ND
27	1,4-Phenylenediamine	106-50-3	0.002	0.002	ND	ND	ND
28	1,5-Diaminonaphthalene	2243-62-1	0.002	0.002	ND	ND	ND
29	2,6-toluenediamine	823-40-5	0.002	0.002	ND	ND	ND
Conclusion					Pass	Pass	Pass

23. Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)

- With reference to EN 13130-1:2004.
- Test condition: MPPO, 40°C for 24 hours
- Sample 005 Migration ratio: 5.48g/1.37dm²

Compounds	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]
			005
Naphthalene	0.01	ND	ND
Acenaphthylene	0.01	ND	ND
Acenaphthene	0.01	ND	ND
Fluorene	0.01	ND	ND
Phenanthrene	0.01	ND	ND
Anthracene	0.01	ND	ND
Fluoranthene	0.01	ND	ND
Pyrene	0.01	ND	ND
Chrysene	0.01	ND	ND
Benzo[a]anthracene	0.01	ND	ND
Benzo[b]fluoranthene	0.01	ND	ND
Benzo[j]fluoranthene	0.01	ND	ND
Benzo[k]fluoranthene	0.01	ND	ND
Benzo[e]pyrene	0.01	ND	ND
Benzo[a]pyrene	0.01	ND	ND
Indeno[1,2,3-cd]pyrene	0.01	ND	ND
Dibenzo[ah]anthracene	0.01	ND	ND
Benzo[ghi]perylene	0.01	ND	ND
Conclusion			Pass

Note: 1. Limit was according to client's requirement

24. Germany-German Food & Feed Acts LFGB Section 31 and BfR Recommendation-Sensory Test

- With reference to DIN 10955:2004
- Test condition: Distilled water, 40°C for 24 hours

Sample(s)	Testing Parameter	Grading result(s)	Recommended level	Conclusion
001-005	Transfer of taste	1	<3	Pass
	Transfer of smell	1	<3	Pass

Note: Available grading are listed as follow:
 Grading 0: No perceptible taste/smell deviation
 1: Just perceptible taste/smell deviation
 2: Weak taste/smell deviation
 3: Clear taste/smell deviation
 4: Strong taste/smell deviation

25. EU-Regulation (EU) No. 10/2011- Phthalates Content

Test with reference to Solvent extraction, analysis was performed by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)
					005
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	<0.05	ND
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	<0.1	ND
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	<0.1	ND
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	<0.1	ND
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	<0.1	ND
Conclusion					Pass

- End of Test Report -