

# **TEST REPORT**

Report No	WTF23F05101282C
Applicant	Mid Ocean Brands B.V.
Address	7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan,
Manufacturer	Kowloon, Hong Kong 111652
Sample Name	600D RPET Trolley
Sample Model	MO2055
Test Conclusion	Refer to next page (s)
Date of Receipt sample	2023-05-10
Testing period	2023-05-10 to 2023-05-23
Date of Issue	2023-05-23
Test Result	Refer to next page (s)
Note:	As specified by client, only test the designated sample.

# Prepared By:

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Signed for and on behalf of Waltek Testing Group (Foshan) Co., Ltd.

Swing Liang

Swing.Liang

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Test Requested ..... :

- Determination of Lead content in the submitted sample in accordance with REACH regulation Annex XVII Entries 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628
- Determination of Cadmium content in the submitted sample in accordance with REACH regulation Annex XVII Entries 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011, No. 835/2012 and (EU) 2016/217
- Determination of specified Phthalates content according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & No. 2018/2005
- Determine the specified AZO Colorants contents in the submitted sample in according to the Entries 43 in Annex XVII of the REACH Regulation (EC) No.1907/2006 and the Amendment Regulation (EC) No.552/ 2009 & No.126/ 2013 (previously restricted under Directive 2002/61/EC).
- Determination of specified Polycyclic Aromatic Hydrocarbons (PAHs) content in submitted sample in accordance with Entries 50 of Annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 1272/2013.
- 6) Nickel content requirement in Annex XVII Item 27 of the REACH Regulation (EC) No. 1907/2006 & amendment No.552/2009 (formerly known as Directive 94/27/EC and 2004/96/EC)
- 7) As requested by the applicant, to test Colour Fastness to Rubbing in the submitted sample.



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# Sample photo:



# Test Results:

# 1) Lead (Pb)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	LOQ	the state	Limit		
	(mg/kg)	No.1+No.2	No.3+No.4	No.5	(mg/kg)
Lead(Pb)	2	ND*	46*	37	500
Conclusion	NUTE STUTE	Pass	Pass	Pass	12 Jah 50

Test Item	LOQ	Result	Limit	
	(mg/kg)	No.6+No.7	No.8+No.9+No.10	(mg/kg)
Lead(Pb)	2	ND*	ND*	500
Conclusion	en unite - unite o	Pass	Pass	St 5th

Test Item	LOQ	s at a	Limit		
	(mg/kg)	No.11	No.12	No.13+No.14	(mg/kg)
Lead(Pb)	2	ND	ND S	ND*	500
Conclusion	S	Pass	Pass	Pass	to -th

Test Item	LOQ	R	Limit		
	(mg/kg)	No.15+No.16	No.17	No.18	(mg/kg)
Lead(Pb)	2	ND*	ND S	12	500
Conclusion	white whit	Pass	Pass	Pass	THE - THE

Test Item	LOQ	LOQ Results (mg/kg)			Limit
	(mg/kg)	No.19+No.22	No.20+No.23	No.21+No.24	(mg/kg)
Lead(Pb)	2	ND*	ND*	44*	500
Conclusion	NI CONTRACT	Pass	Pass	Pass	St 3

Test Item	LOQ	At 1st	Results (mg/kg)	Limit	
	(mg/kg)	No.25+No.26	No.27+No.28	No.29+No.30	(mg/kg)
Lead(Pb)	2	ND*	ND*	ND*	500
Conclusion	A LINE NOTING	Pass	Pass	Pass	<u></u>



Test Item	LOQ	Results (m	g/kg)	Limit
	(mg/kg)	No.31+No.32+No.33	No.34	(mg/kg)
Lead(Pb)	2	ND*	ND	500
Conclusion		Pass	Pass	when the a

That Hand	LOQ	Results	(mg/kg)	Limit
Test Item	(mg/kg)	No.35	No.36	(mg/kg)
Lead(Pb)	2	ND	ND	500
Conclusion	m	Pass	Pass	in min - m

#### Note:

(1) mg/kg = milligram per kilogram

(2) ND = Not Detected (lower than LOQ)

(3) LOQ = Limit of quantitation

(4) Limit of Lead was quoted from REACH regulation Annex XVII Item 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628.

(5) "\*" = Results are calculated by the minimum weight of mixed components.

## 2) Cadmium (Cd)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Track Manager States	LOQ	Results (mg/kg)				
Test Item	(mg/kg)	No.3+No.4	No.6+No.7	No.8+No.9+No.10		
Cadmium(Cd)	2	ND*	ND*	ND*		
Conclusion	L	Pass	Pass	Pass		

Toot Hom	LOQ	Results (mg/kg)				
Test Item	(mg/kg)	No.11	No.12	No.13+No.14		
Cadmium(Cd)	2	13	ND	ND*		
Conclusion	<del>.</del>	Pass	Pass	Pass		

Test Item	LOQ	Results (mg/kg)		
	(mg/kg)	No.15+No.16	No.17	No.19+No.22
Cadmium(Cd)	2 5	23*	ND	ND*
Conclusion	t the	Pass	Pass	Pass



Test Item	LOQ	Results (mg/kg)					
	(mg/kg)	No.21+No.24	No.27+No.28	No.29+No.30			
Cadmium(Cd)	3 <sup>0</sup> 2 3 <sup>0</sup>	ND*	ND*	ND*			
Conclusion	10 5 <sup>00</sup>	Pass	Pass	Pass			

Toot Kom Martin	LOQ	Results (m	g/kg)	
Test Item	(mg/kg) No.34		No.36	
Cadmium(Cd)	2	ND	ND ND	
Conclusion		Pass	Pass	

#### Note:

(1) mg/kg = milligram per kilogram

(2) ND = Not Detected (lower than LOQ)

(3) LOQ = Limit of quantitation

(4) Limit of Cadmium according to REACH regulation Annex XVII Item 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011 and No. 835/2012 and (EU) 2016/217.

Category	Limit (mg/kg)
Wet paint	100
Surface coating	1000
Plastic	100
Metal parts of jewellery and hair accessories	100

(5) "\*" = Results are calculated by the minimum weight of mixed components.



#### 3) Phthalates

Test Method: With reference to EN14372:2004, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

While while while while	LOQ	sunt s	Limit			
Test Items	(%)	No.3+No.4	No.6+No.7	No.8+No.9 +No.10	(%)	
Benzyl butyl phthalate (BBP)	0.005	ND*	ND*	ND*	at at is	
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND*	ND*	√ND* √	sum of four	
Dibutyl phthalate (DBP)	0.005	ND*	ND*	ND*	phthalates < 0.1	
Diisobutyl phthalate (DIBP)	0.005	ND*	ND*	ND*	at set	
Diisodecyl phthalate (DIDP)	0.01	ND*	ND*	ND*	me m	
Diisononyl phthalate (DINP)	0.01	ND*	ND*	ND*	sum of three phthalates < 0.1	
Di-n-octyl phthalate (DNOP)	0.005	ND*	ND*	ND*		
Conclusion		Pass	Pass	Pass	in white white	

Test Items	LOQ	(%)			Limit	
	(%)	No.12	No.13+No.14	No.17	(%)	
Benzyl butyl phthalate (BBP)	0.005	ND	ND*	ND	Clin while whit	
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND	ND*	ND	sum of four	
Dibutyl phthalate (DBP)	0.005	ND	ND*	ND	phthalates < 0.1	
Diisobutyl phthalate (DIBP)	0.005	ND	ND*	ND S	MULTER WALTER	
Diisodecyl phthalate (DIDP)	0.01	ND 4	ND*	ND	at at	
Diisononyl phthalate (DINP)	0.01	ND	ND*	ND	sum of three phthalates < 0.1	
Di-n-octyl phthalate (DNOP)	0.005	ND	ND*	ND		
Conclusion	5 <sup>44</sup> .	Pass	Pass	Pass		



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Test Items	LOQ	Fet white	Limit			
	(%)	No.29+No.30	No.34	No.36	(%)	
Benzyl butyl phthalate (BBP)	0.005	ND*	ND W	ND	at at	
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND*	ND	ND	sum of four	
Dibutyl phthalate (DBP)	0.005	ND*		ND	phthalates < 0.1	
Diisobutyl phthalate (DIBP)	0.005	ND*	ND	ND	L A A	
Diisodecyl phthalate (DIDP)	0.01	ND*	ND	ND	when whe	
Diisononyl phthalate (DINP)	0.01	ND*	ND		sum of three phthalates < 0.1	
Di-n-octyl phthalate (DNOP)	0.005	ND*	ND M	ND		
Conclusion	10	Pass	Pass	Pass	Jule marker and	

#### Note:

DBP= Dibutyl phthalate DINP= Di-isononyl phthalate DIBP= Diisobutyl phthalate BBP= Benzyl butyl phthalate DNOP= Di-n-octyl phthalate DEHP= Bis-(2-ethylhexyl)- phthalate DIDP= Di-isodecyl phthalate

- (1) % = percentage by weight
- (2) ND = Not Detected or lower than limit of quantitation
- (3) LOQ = Limit of quantitation
- (4) "<" = less than
- (5) The above limit was quoted according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & No. 2018/2005 (formerly known as Directive 2005/84/EC) for phthalate content in toys and child care articles.
- (6) "\*" = Results are calculated by the minimum weight of mixed components.



## 4) AZO

Test Method: With reference to BS EN ISO 14362-1: 2017 and BS EN ISO 14362-3: 2017, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS)

No.	Amines Substances	CAS No.	Limit	Result (mg/kg)	
NO.	Annies Substances	CAS NO.	(mg/kg)	No.1+No.2	
1	4-Aminobiphenyl	92-67-1	30	ND*	
2	Benzidine	92-87-5	30	ND*	
3	4-chloro-o-Toluidine	95-69-2	A 30 A	ND*	
4	2-Naphthylamine	91-59-8	30	ND*	
5	o-Aminoazotoluene	97-56-3	30	ND*	
6	2-Amino-4-nitrotoluene	99-55-8	30	ND*	
7	p-Chloroaniline	106-47-8	30	ND*	
8	2,4-diaminoanisol	615-05-4	30	ND*	
9	4,4'-Diaminodiphenylmethane	101-77-9	30	ND*	
10	3,3'-Dichlorobenzidine	91-94-1	30	ND*	
11	3,3'-Dimethoxybenzidine	119-90-4	30	ND*	
12	3,3'-Dimethylbenzidine	119-93-7	30	ND*	
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	30	ND*	
14	p-cresinin	120-71-8	30	ND*	
15	4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND*	
16	4,4'-Oxydianiline	101-80-4	30	ND*	
17	4,4'-Thiodianiline	139-65-1	30	ND*	
18	o-Toluidine	95-53-4	30	ND*	
19	2,4-Toluylendiamine	95-80-7	30	ND*	
20	2,4,5 – Trimethylaniline	137-17-7	30	ND*	
21	o-anisidine	90-04-0	30	ND*	
22	4-aminoazobenzene	60-09-3	30	ND*	
23	2,4-Xylidin	95-68-1	30	1 ND* 1	
24	2,6-Xylidin	87-62-7	30	ND*	
-3	Conclusion			Pass	



No.	Aminoo Substanses	CAS No.	Limit	Result (mg/kg)		
NO.	Amines Substances	CAS NO.	(mg/kg)	No.25+No.26		
1	4-Aminobiphenyl	92-67-1	30	ND*		
2	Benzidine	92-87-5	30	ND*		
3	4-chloro-o-Toluidine	95-69-2	30	ND*		
4	2-Naphthylamine	91-59-8	30	ND*		
5	o-Aminoazotoluene	97-56-3	30	ND*		
6	2-Amino-4-nitrotoluene	99-55-8	30	ND*		
7	p-Chloroaniline	106-47-8	30	کND*		
8	2,4-diaminoanisol	615-05-4	30	ND*		
9,5	4,4'-Diaminodiphenylmethane	101-77-9	30	ND*		
10	3,3'-Dichlorobenzidine	91-94-1	30 🔊	ND*		
11	3,3'-Dimethoxybenzidine	119-90-4	30	ND*		
12	3,3'-Dimethylbenzidine	119-93-7	30	ND*		
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	30	ND*		
14	p-cresinin	120-71-8	.30	ND*		
15	4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND*		
16	4,4'-Oxydianiline	101-80-4	30	ND*		
17	4,4'-Thiodianiline	139-65-1	30	ND*		
18	o-Toluidine	95-53-4	30	ND*		
19	2,4-Toluylendiamine	95-80-7	30	ND*		
20	2,4,5 – Trimethylaniline	137-17-7	30	ND*		
21	o-anisidine	90-04-0	30	ND*		
22	4-aminoazobenzene	60-09-3	30	ND*		
23	2,4-Xylidin	95-68-1	30	ND*		
24	2,6-Xylidin	87-62-7	30	ND*		
50	Conclusion		1 - 5 <sup>0-</sup>	Pass .		



<u></u>	Aminoo Substanses	CACNE	Limit	Result (mg/kg)		
No.	Amines Substances	CAS No.	(mg/kg)	No.35		
1	4-Aminobiphenyl	92-67-1	30	ND A		
2	Benzidine	92-87-5	30	Mr. ND M		
3	4-chloro-o-Toluidine	95-69-2	30	ND S		
4	2-Naphthylamine	91-59-8	30	ND ND		
5	o-Aminoazotoluene	97-56-3	30	ND Strain		
6	2-Amino-4-nitrotoluene	99-55-8	30	ND		
7	p-Chloroaniline	106-47-8	30	St SND St St		
8	2,4-diaminoanisol	615-05-4	30	ND		
9,5	4,4'-Diaminodiphenylmethane	101-77-9	30	ND ST		
10	3,3'-Dichlorobenzidine	91-94-1	30	ND		
11	3,3'-Dimethoxybenzidine	119-90-4	30	ND		
12	3,3'-Dimethylbenzidine	119-93-7	30	ND		
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	30	ND ND		
14	p-cresinin	120-71-8	30	ND		
15	4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND ST		
16	4,4'-Oxydianiline	101-80-4	30	ND		
17	4,4'-Thiodianiline	139-65-1	30	ND		
18	o-Toluidine	95-53-4	30	ND		
19	2,4-Toluylendiamine	95-80-7	30	ND ND		
20	2,4,5 – Trimethylaniline	137-17-7	30	ND		
21	o-anisidine	90-04-0	30	ND ND		
22	4-aminoazobenzene	60-09-3	30	ND		
23	2,4-Xylidin	95-68-1	30 5	ND		
24	2,6-Xylidin	87-62-7	30	ND		
N.S.	Conclusion		1- 5	Pass S		

#### Note:

- ND = Not Detected or lower than limit of quantitation
- mg/kg=Milligram per kilogram
- Limit of quantitation (mg/kg): Each 5mg/kg
- The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
- AZO colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline and 1,4-phenylenediamine. The presence of these colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorant used.
- The CAS-numbers 95-68-1 and 87-62-7 are not proscribed under REACH Regulation (EC) No 1907/2006 "\*" = Results are calculated by the minimum weight of mixed components.



# 5) Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: With reference to AFPS GS 2019:01 PAK method, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS).

Test Items	Unit Results No.6+No.7		LOQ	Limit	
Benzo(a)anthracene (BaA)	mg/kg	ND*	0.2	1.0	
Chrysene (CHR)	mg/kg	ND*	0.2	1.0	
Benzo[b]fluoranthene (BbFA)	mg/kg	ND*	0.2	1.0	
Benzo[k]fluoranthene (BkFA)	mg/kg	ND*	0.2	set 1.0	
Benzo(a)pyrene (BaP)	mg/kg	ND*	0.2	1.0	
Dibenzo[a,h]anthracene (DBAhA)	mg/kg	ND*	0.2	1.0	
Benzo[j]fluoranthene (BjFA)	mg/kg	ND*	0.2	1.0	
Benzo[e]Pyrene (BeP)	mg/kg	ND*	0.2	J. 1.0 J.	
Conclusion	min -min	Pass		A+- 50	

Test Items	Unit Results No.8+No.9		LOQ	Limit	
Benzo(a)anthracene (BaA)	mg/kg	ND*	0.2	1.0	
Chrysene (CHR)	mg/kg	ND*	0.2	1.0	
Benzo[b]fluoranthene (BbFA)	mg/kg	ND*	0.2	1.0	
Benzo[k]fluoranthene (BkFA)	mg/kg	ND*	0.2	1.0	
Benzo(a)pyrene (BaP)	mg/kg	ND*	0.2	1.0	
Dibenzo[a,h]anthracene (DBAhA)	mg/kg	ND*	0.2	1.0	
Benzo[j]fluoranthene (BjFA)	mg/kg	ND*	0.2	1.0	
Benzo[e]Pyrene (BeP)	mg/kg	ND*	0.2	JN 1.0 JN	
Conclusion	untre-main	Pass	15 15	18- 5th	

# Note:

(1) ND = Not Detected or lower than limit of quantitation

- (2) mg/kg=milligram per kilogram=ppm
- (3) LOQ = Limit of quantitation
- (4) As per Entries 50 of Annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 1272/2013, Articles shall not be placed on the market for supply to the general public, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 1 mg/kg (0,0001 % by weight of this component) of any of the listed PAHs.
- (5) As per Entries 50 of Annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 1272/2013, Toys, including activity toys, and childcare articles, shall not be placed on the market, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 0,5 mg/kg (0,00005 % by weight of this component) of any of the listed PAHs.
- (6) "\*" = Results are calculated by the minimum weight of mixed components.

# 6) Nickel release

Test method: With reference BS EN1811: 2011+A1:2015, Nickel content was determined by Inductively Coupled Argon Plasma Spectrometry

2hr	24	Samula	Volume of	- 15-	Nickel	release	we we	- 10 - 1
Iten	n No. 🛷	Sample Area (cm <sup>2</sup> )	Test		Conclusion			
NN INT	UNLIL WILL SUR	Area (CIII ) Solution(ml)	Trial 1	Trial 2	Trial 3	Average	no inno	
No	o.15	19.98	20	ND	ND	ND	ND	Pass

## Note:

- (1) µg/cm²/week = microgram per square centimetre per week
- (2) Limit of quantitation =  $0.05 \,\mu g/cm^2/week$
- (3) ND = Not Detected or lower than limit of quantitation
- (4) Interpretation of test results:

The state where the	Nickel Release	e(µg/cm²/week)
Type of sample	Pass	Fail Market
Other components in direct and prolonged contact with the skin	<0.88	≥0.88
Post assemblies and body piercings (Post assemblies which are inserted into pierced parts of the human body)	<0.35	≥0.35





## 7) Colour Fastness to Rubbing

Colour Fast	Colour Fastness to Rubbing						
(ISO 105-X1	2: 2016; Size of rubbin	ng finger: 16	Smm diame	eter.)		s. A	at at
me in	m m n	No.1	No.2	No.25	No.26	No.35	Client's Limit
Longth	Dry staining 4-5 4-5 4-5 4-5	4-5	4-5	2-3			
Length	Wet staining	4	4-5	4-5	↓ 4-5	4-5	2-3
\\/idth	Dry staining		m - n	2-3			
Width	Wet staining	- ar	$n_{\sim} - z_{\eta}$				2-3
Conclusion	m. m. s.	Pass	Pass	Pass	Pass	Pass	m-m

#### Note:

(1) Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

## **Description for Specimen:**

Specimen No.	Specimen Description		
1 1	Black main fabric		
which and 2 which which	Black fabric sheet		
	White plastic label with multicolour coating and transparent glue		
4	Black plastic shell		
5	Silvery metal strip		
6	Black plastic gear with white printing		
we wry w	Black plastic shell		
8	Black plastic shell		
9 / /	Black plastic shell		
10	Black plastic shell		
of the 11st with w	Silvery metal rivet with black coating		
12	Black plastic wheel		
which white and and	Black plastic shell		
14 John John John	Black plastic shell		
15	Silvery metal shell with black coating		
16	Silvery metal screw with black coating		
L 17 - 17	Black plastic shell		
JUL 18 18	Silvery metal shell		

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Specimen No.	Specimen Description		
19	Black plastic zipper tooth		
20	Black zipper fabric		
21	Silvery metal zipper head with black coating		
22	Black plastic zipper tooth		
23	Black zipper fabric		
24	Silvery metal zipper head with black coating		
25	Black lining		
26	Black rim fabric		
27	Black plastic hook(VELCRO)		
28	Black plastic loop(VELCRO)		
29	Black plastic shell		
J 30 J 1	Black plastic shell		
31	Silvery metal screw		
32	Silvery metal screw		
33	Silvery metal gasket		
34	Black plastic shell		
35	Black fabric sheet		
36	Transparent dry glue		

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# Photograph of parts tested:



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#### Remarks:

- 1. The results shown in this test report refer only to the sample(s) tested;
- 2. This test report cannot be reproduced, except in full, without prior written permission of the company;
- 3. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver;
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- 5. If the report is not stamped with the accreditation recognized seal, it will only be used for scientific research, education, and internal quality control activities, and is not used for the purpose of issuing supporting data to the society.
- 6. The sample material information (Model No. information) is provided by client, not verified by test laboratory. The samples of reference Model No. are not tested. Test laboratory not responsible for the accuracy, appropriateness, completeness and authenticity of the information provided by client.

===== End of Report ======