



TEST REPORT

Reference No	:	WTF17F1296856C
Applicant	- -	Mid Ocean Brands B.V.
Address	: 51	Unit 201 2/F., Laford Centre, 838 Lai Chi Kok Road, Cheung Sha Wan, Kowloon, Hong Kong.

111652

 Manufacturer
 111652

 Sample Name
 Backpack

 Model No.
 MO9294

Test Requested.....: In accordance with the RoHS Directive 2011/65/EU

2) With Reference to IFC 62321-3-1:20

2) With Reference to IEC 62321-3-1:2013, screening - Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry

3) With reference to IEC62321-4:2013, determination of Mercury by ICP-OES

4) With reference to IEC62321-5:2013, determination of Lead and Cadmium by ICP-OES

5) With reference to IEC 62321-7-2:2017 and IEC 62321-7-1:2015, determination of Hexavalent Chromium by UV-Vis

6) With reference to IEC62321-6:2015, determination of PBBs and PBDEs by GC-MS

Test Conclusion : Based on the performed tests on the submitted samples, the results

comply with the RoHS Directive 2011/65/EU

Date of Receipt sample : 2017-12-01

Date of Test : 2017-12-01 to 2017-12-05

Date of Issue 2017-12-06

Test Result : Please refer to next page (s)

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Services (Foshan) Co., Ltd.

Address: No. 13-19, 2/F, 2nd Building, Sunlink International Machinery City, Chencun Town, Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398 Fax:+86-757-23811381

Compiled by:

April.Chen / Project Engineer

Cino.Zhang/ Lab Manager







Test Results:

Part No.	Part Description	Result	of XRF	Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS	
1EX	TEX STEE STEE MITE WA	Cd	BL	e at at	TEX	
	We My My	Pb	BL	E WILL WALL	Mr. M	
_1	Silvery metal shell of USB plug	Hg	BL	NA	Comply	
~ 10 ~	The man and an	Cr	→ BL	TEX LIER RITE.	INLIE WALL	
20.	and the second	Br	BL	The The The		
	with with whi with	Cd	BL	at all the	TER WITE	
1/1/2		Pb	BL	illy mury and any	211	
2	White plastic core of USB plug	Hg	BL	NA	Comply	
n'i'	me me m	_ Cr _	BL	te alie with white	MUL	
٠.	at at the test of	Br	BL	20, 20,	at	
	VII MUT MUT MU MI	Cd	BL	H TEX TEX STE	Will Wh	
	the state of	Pb	BL	ing any any	2. 2.	
3	Golden metal pin of USB plug	Hg	BL	NA NA	Comply	
"IN	24	Cr	BL	alite will mur m		
.4	t tex itex of with	Br W	BL		et let	
W.	me me m	Cd	BL	CIET SLIFE WITH WAL	Comply	
	at let a life	Pb	BL	NA STATE		
4	Black plastic jacket of USB plug	Hg	BL			
	In the state of th	Cr	BL			
EX	TEX SITES SITES	Br	BL	t at at		
71	. 4, 2,	Cd	BL	Mill Mill Mark	Comply	
	at the the liter	Pb	BL			
5	Solder of USB plug	Hg	BL	NA VI		
7.	at the first	Cr	BL	n my m		
TEX	att with with	Br	BL	to the set of	X LIER	
a_{r}	20 10 1	Cd	BL	T. Mr. M.	10,	
TEX	TEX S	Pb	BL	at at	TEX	
6	Silvery metal shell of USB plug	Hg	BL	NA	Comply	
٠	at at test itest or	Cr	BL	20, 20,	*	
	it will mut mus m	Br	BL	TEX JEX JER	nlite anli	
6	. I st set set	Cd	BL	Mr. Mr. M. A		
7	Wife mile while while	Pb	BL	at at let	Comply	
	White plastic core of USB plug	∠⁄Hg ⋌	BL	NA NA		
	TEX LIER SLIER WIFE, W	Cr	BL "	1 1 1		
	Wer. Mr. Mr. Mr.	→ Br →	BL	ie lie wie wil		
EX	it lit tilt tilt til	Cd	BL	741. 70	Comply	
	The Maria Maria Maria Maria	Pb	BL	t TEX TEX TEX		
8	Silvery metal pin of USB plug	Hg	BL	NA W		
<u> </u>	EX SITE WITE WALL WALL	Cr	BL	at at at		
W	111, 111, 12,	Br	BL	CITE MIT WILL W	in Mr.	





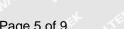
Part No.	Part Description	Result of XRF		Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS
EX	TEN LIER NITER MILE WA	Cd	BL	L At At	TEX
	in in in	Pb	BL	aller white white	MUT. M
9	Solder of USB plug	Hg	BL	NA	Comply
20	ite with mut and all	Cr	BL	TEX LIER LIER	
20,	· · · · · · · · · · · · · · · · · · ·	Br	BL	Apr. Mr. M. A	
(1)	ALTE MIT WALL WALL	Cd	BL	et et et	TER LIFE
m.	711, 72, 7	Pb	BL	Wir Wer Mur Mu	211
10	Black plastic jacket of USB plug	Hg	BL	NA NA	Comply
	Mr. Mr. Mr. M.	Cr	BL	TE SLIER WITE WALL	
1	at let text text of	Br	M BLW	14, 14, 15,	
	WILL ME ME AND AND	Cd	∠ BL ∠	t let the the	Comply
7		Pb	BL	ing was all	
11	Red plastic wire covering	Hg	BL	NA NA	
11/1	The The St	Cr	BL		
16	t tex tex by with	Br W	BL	<u></u>	
ULL.	Coppery metal wire	Cd	BL	NA CHANGE	Comply
		Pb	BL		
12		Hg	BL		
	and the state of t	Cr	BL		
EX	TEX STEE STEE	Br	BL	at at let	
7/1	. 20, 20,	Cd	BL	NITE WALL WALL	Comply
	et tet itet alte	Pb	BL	1 x	
13	Blue plastic wire covering	Hg	BL	NA JE	
	A ST SET SET	Cr	BL	in the the	
TEN		Br	BL	t de tex si	
14	2, 3, 4	Cd	BL	r. Mur. My	10,
		Pb	BL	at at	Comply
	Green plastic wire covering	Hg	BL	NA	
	et let let liet out	Cr	BL	20, 20	
	it with the way	Br	BL	TEX TEX LIER	ALIL MI
72.	the state of the state of	Cd	BL	Mr. My. M. A	
	the the all all	Pb	BL	1 1	Et JE



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Part	Port Description	Decult.	of VDE	Result of Wet Chemical	Conclusion on RoHS
No.	Part Description	Result	of XRF	Testing (mg/kg)	
TEX	ITER SLIFE WITE WALL W	Cd	BL	A CH CH	TEX
	Silvery metal sleeve of plug	Pb	BL	NA	Comply
17		Hg	BL		
	The Mr. Mr. Mr.	Cr	BL.	TEX STEEL OUTE.	
	and the set of	Br	BL	2 171 121	







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(1) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr6⁺) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	BL ≤ (70-3σ) < IN < (130+3σ) ≤ OL	BL \leq (70-3 σ) $<$ IN $<$ (130+3 σ) \leq OL	LOD < IN < (150+3σ) ≤ OL
Pb	BL \leq (700-3 σ) $<$ IN $<$ (1300+3 σ) \leq OL	$BL \le (700-3\sigma) < IN < (1300+3\sigma) \le OL$	BL ≤ (500-3σ) < IN < (1500+3σ) ≤ OL
Hg	$BL \le (700-3\sigma) < IN < (1300+3\sigma) \le OL$	BL ≤ (700-3σ) < IN < (1300+3σ) ≤ OL	BL ≤ (500-3σ) < IN < (1500+3σ) ≤ OL
Cr	BL ≤ (700-3σ) < IN	BL ≤ (700-3σ) <in< td=""><td>BL ≤ (500-3σ) < IN</td></in<>	BL ≤ (500-3σ) < IN
Br	BL ≤ (300-3σ) < IN	The marie and w	BL ≤ (250-3σ) < IN

BL= Below Limit

OL= Over Limit

LOD = Limit of Detection

-- = Not Regulated

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
- (3) The XRF screening test for RoHS elements the reading may be different to the actual content in the sample be of non-uniformity composition.
- (4) ppm = mg / kg, based on the dry weight of tested sample.
- (5) ND = Not Detected, less than the value of Method Detection Limit.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit, it was not need to conduct the wet chemical testing.
- (7) MDL= Method Detection Limit in wet chemical test

5	Test Items	Pb	Cd	Hg	Cr ⁶⁺		PBB	PBDE
	Units	mg/kg	mg/kg	mg/kg	mg/kg	μg/cm ²	mg/kg	mg/kg
	MDL	2	2	2	2	0.1	5	5

The MDL for single compound of PBBs and PBDEs is 5mg/kg, MDL of Cr⁶⁺ for polymer and composite sample is 2mg/kg and MDL of Cr⁶⁺ for metal sample is 0.1µg/cm².

(8) According to IEC 62321-7-1:2015, determined of Cr6+ on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

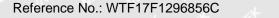
Negative = Absence of Cr6+ coating, the detected concentration in boiling water extraction solution is less than 0.10ug/cm².

Positive = Presence of Cr⁶⁺ coating, the detected concentration in boiling water extraction solution is greater than 0.13ug/cm².

Information on storage conditions and production date of the tested sample is unavailable and thus Cr6+ results represent status of the sample at the time of testing.

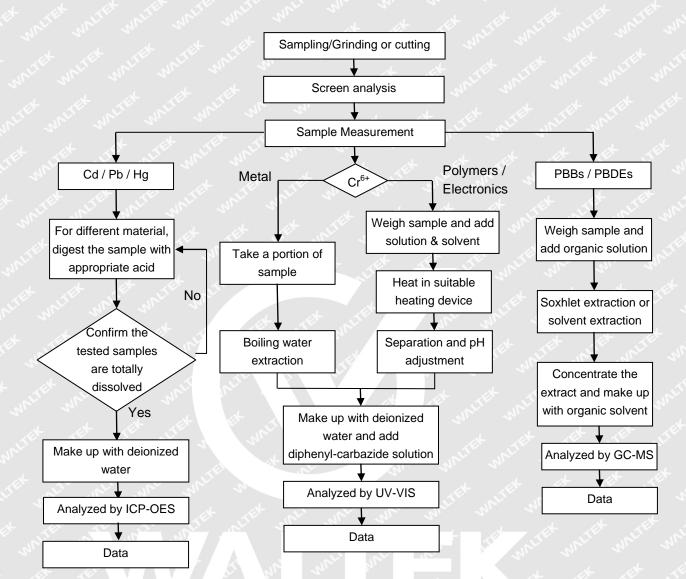
(9) The testing standard "IEC62321-7-2:2017" does not been accredited by CNAS.

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Measurement Flowchart:



Sample Photo:

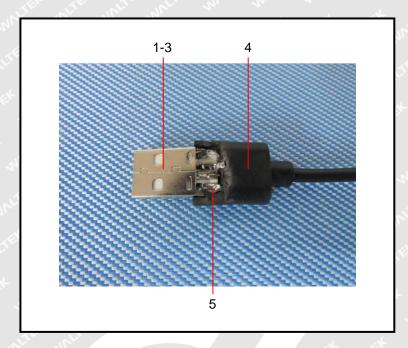


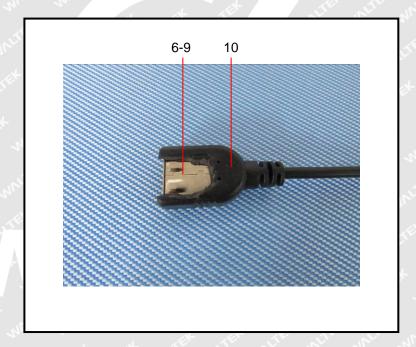


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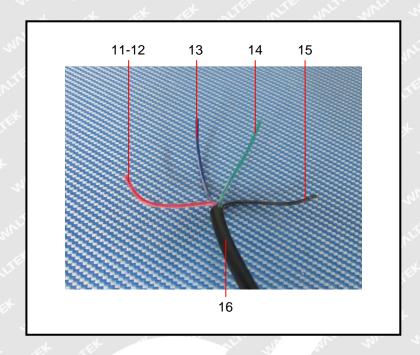
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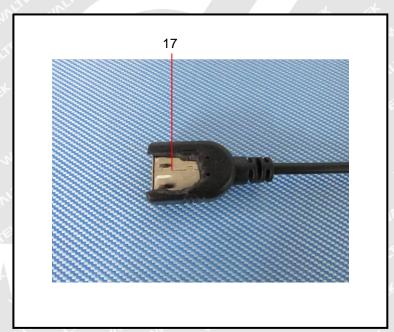
Photograph of parts tested:











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