TEST REPORT

Report No.	:	WTF26F04101061R2C
Job No.	:	FSW2604150763CJ
Applicant	:	Mid Ocean Brands B.V.
Address	:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer	:	112451
Sample Name	:	6 panel cotton baseball cap
Sample Model	:	MO2347
Test Requested	:	Refer to next page(s)
Test Method	:	Refer to next page (s)
Test Conclusion	:	**Pass**
Date of Receipt Sample	:	2026-04-15 & 2026-06-24
Testing Period	:	2026-04-15 to 2026-04-24 & 2026-04-30 to 2026-05-09 & 2026-06-24 to 2026-07-01
Date of Issue	:	2026-07-02
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.

WTF26F04101061R2C

Rena Chen
Waltek Testing Group (Foshan) Co., Ltd.

Summary

Item No.	Test Requested	Test Conclusion
1	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	**Pass**
2	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	**Pass**
3	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	**Pass**
4	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.	**Pass**
5	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).	**Pass**
6	To determine the nickel release content according to Annex XVII Item 27 of the REACH Regulation (EC) No. 1907/2006 & amendment No.552/2009.	**Pass**
7	As requested by the applicant, to test Colour Fastness to Rubbing in the submitted sample.	**Pass**

Sample photo:

MO2347

MO2347

MO2347

MO2347

Test Results:

1) Lead (Pb)

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

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.1+No.6+No.7	No.2+No.8+No.9	
Lead(Pb)	2	ND*	ND*	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)			Limit (mg/kg)
		No.3+No.10 +No.11	No.12	No.13+No.16 +No.18	
Lead(Pb)	2	ND*	ND	ND*	500
Conclusion	--	**Pass**	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)			Limit (mg/kg)
		No.14	No.15+No.19 +No.20	No.17	
Lead(Pb)	2	46	ND*	ND	500
Conclusion	--	**Pass**	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)			Limit (mg/kg)
		No.21+No.22+ No.23	--	--	
Lead(Pb)	2	ND*	--	--	500
Conclusion	--	**Pass**	--	--	--

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) "*" = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.

(6) As per client's requirement, results of specimen No.1 to No.3 and No.6 to No.20 are quoted from report No.WTF26F04101061C specimen No.1 to No.3 and No.6 to No.20.

2) Cadmium (Cd)

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

Test Item	LOQ (mg/kg)	Results (mg/kg)	
		No.4+No.5+No.17	No.13+No.16+No.18
Cadmium(Cd)	2	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) "*" = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.

(6) As per client's requirement, all results of specimen are quoted from report No. WTF26F04101061C.

3) Phthalates

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

Test Items	LOQ (%)	Results (%)		Limit (%)
		No.4+No.5+ No.17	No.13+No.16+ No.18	
Benzyl butyl phthalate (BBP)	0.005	ND*	ND*	sum of four phthalates < 0.1
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND*	ND*	
Dibutyl phthalate (DBP)	0.005	ND*	ND*	
Diisobutyl phthalate (DIBP)	0.005	ND*	ND*	
Diisodecyl phthalate (DIDP)	0.01	ND*	ND*	sum of three phthalates < 0.1
Diisononyl phthalate (DINP)	0.01	ND*	ND*	
Di-n-octyl phthalate (DNOP)	0.005	ND*	ND*	
Conclusion	--	**Pass**	**Pass**	--

Note:

(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) "*" = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.

(7) As per client's requirement, all results of specimen are quoted from report No. WTF26F04101061C.

4) 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	LOQ	Limit
		No.13+No.16+No.18		
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	1.0
Conclusion	--	**Pass**	--	--

Test Items	Unit	Results	LOQ	Limit
		No.17		
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	1.0
Conclusion	--	**Pass**	--	--

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) “*” = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.

(7) As per client’s requirement, all results of specimen are quoted from report No. WTF26F04101061C.

5) 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 (mg/kg)	Result (mg/kg)
				No.1+No.6+No.7
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	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	ND*
24	2,6-Xylidin	87-62-7	30	ND*
--	**Conclusion**	--	--	**Pass**

No.	Amines Substances	CAS No.	Limit (mg/kg)	Result (mg/kg)
				No.2+No.8+No.9
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	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	ND*
24	2,6-Xylidin	87-62-7	30	ND*
--	**Conclusion**	--	--	**Pass**

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

No.	Amines Substances	CAS No.	Limit (mg/kg)	Result (mg/kg)
				No.21+No.22+No.23
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	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	ND*
24	2,6-Xylidin	87-62-7	30	ND*
--	**Conclusion**	--	--	**Pass**

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.
- “*” = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.
- As per client’s requirement, results of specimen No.13 are quoted from report No.WTF26F04101061R1C specimen No.13.
- As per client’s requirement, results of specimen No.1, No.2, No.6, No.7,No.8,No.9,No.15 are quoted from report No.WTF26F04101061C specimen No.1, No.2, No.6, No.7,No.8,No.9,No.15.

6) Nickel release

Test Method: With reference to EN1811:2023, Nickel content was determined by Inductively Coupled Argon Plasma Spectrometry.

Item No.	Sample Area (cm^2)	Volume of Test Solution(ml)	Nickel release (μg/cm^2/week)				Conclusion
			Trial 1	Trial 2	Trial 3	Average	
No.12	12.95	15	ND	ND	ND	ND	**Pass**
No.14	19.72	20	ND	ND	ND	ND	**Pass**

Note:

(1) μg/cm^2/week = microgram per square centimetre per week

(2) Limit of quantitation = 0.05 μg/cm^2/week

(3) ND = Not detected or less than the value of limit of quantitation

(4) Pass =Test results comply with the limit

(5) Interpretation of test results:

Type of sample	Nickel Release(μg/cm^2/week)	
	Pass	Fail
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

(6) As per client's requirement, all results of specimen are quoted from report No. WTF26F04101061C.

7) Colour Fastness to Rubbing

Colour Fastness to Rubbing						
(ISO 105-X12: 2016; Size of rubbing finger: 16mm diameter.)						
		No.1	**No.2**	**No.6**	**No.7**	**Client's Limit**
Length	Dry staining	4-5	4-5	4-5	4-5	2-3
	Wet staining	3	4	2-3	3-4	2-3
Width	Dry staining	4-5	4-5	--	--	2-3
	Wet staining	3	4	--	--	2-3
Conclusion		**Pass**	**Pass**	**Pass**	**Pass**	--

Colour Fastness to Rubbing						
(ISO 105-X12: 2016; Size of rubbing finger: 16mm diameter.)						
		No.8	**No.9**	**No.15**	**No.13**	**Client's Limit**
Length	Dry staining	4-5	4-5	4-5	4-5	2-3
	Wet staining	4	4-5	4	4-5	2-3
Width	Dry staining	--	--	--	4-5	2-3
	Wet staining	--	--	--	4-5	2-3
Conclusion		**Pass**	**Pass**	**Pass**	**Pass**	--

Colour Fastness to Rubbing					
(ISO 105-X12: 2016; Size of rubbing finger: 16mm diameter.)					
		No.21	**No.22**	**No.23**	**Client's Limit**
Length	Dry staining	4-5	4-5	4-5	2-3
	Wet staining	3	3	4	2-3
Width	Dry staining	4-5	--	--	2-3
	Wet staining	3	--	--	2-3
Conclusion		**Pass**	**Pass**	**Pass**	--

Note:

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

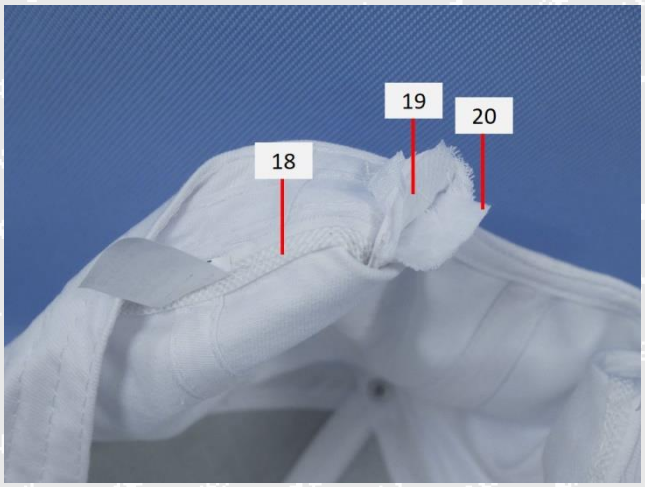
(2) As per client's requirement, results of specimen No.13 are quoted from report No.WTF26F04101061R1C specimen No.13.

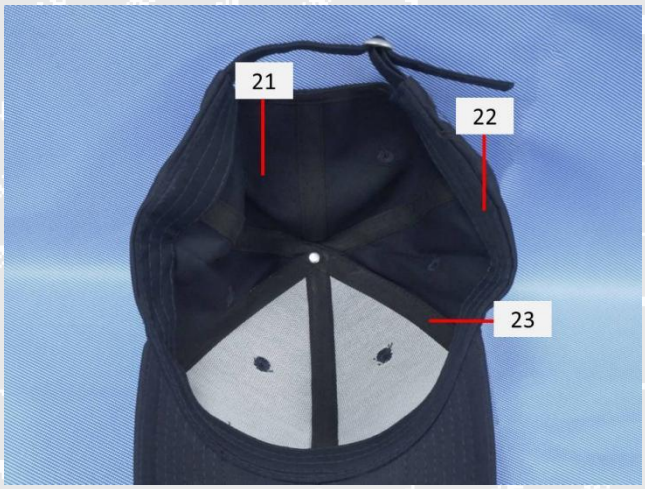
(3)As per client's requirement, results of specimen No.1,No.2,No.6,No.7,No.8,No.9,No.15 are quoted from report No.WTF26F04101061C specimen No.1,No.2,No.6,No.7,No.8,No.9,No.15.

Description for Specimen:

Specimen ID	Specimen No.	Specimen Description
FSW2604150763CJ. 1	1	Black main fabric
FSW2604150763CJ. 2	2	Army green main fabric
FSW2604150763CJ. 3	3	White main fabric
FSW2604150763CJ. 4	4	Black plastic sheet
FSW2604150763CJ. 5	5	White plastic sheet
FSW2604150763CJ. 6	6	Black sweatband
FSW2604150763CJ. 7	7	Black binder on inner cap
FSW2604150763CJ. 8	8	Army green sweatband
FSW2604150763CJ. 9	9	Army green binder on inner cap
FSW2604150763CJ. 10	10	White sweatband
FSW2604150763CJ. 11	11	White binder on inner cap
FSW2604150763CJ. 12	12	Silvery metal rivet
FSW2604150763CJ. 13	13	White-black plastic net
FSW2604150763CJ. 14	14	Silvery metal buckle
FSW2604150763CJ. 15	15	Black non-woven fabric
FSW2604150763CJ. 16	16	Black plastic strip
FSW2604150763CJ. 17	17	Black sponge sheet
FSW2604150763CJ. 18	18	White plastic strip
FSW2604150763CJ. 19	19	White non-woven fabric
FSW2604150763CJ. 20	20	White cotton
FSW2604150763CJ. 21	21	Navy-blue main fabric
FSW2604150763CJ. 22	22	Navy-blue sweatband
FSW2604150763CJ. 23	23	Black binder on inner cap

Photograph of parts tested:





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;
4. The Applicant name and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which Waltek hasn't verified;
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 ======