

Test Report

Applicant: CHEN TONG LEATHER CO., LTD.
No. 111-1, Minsheng Rd.,
Dayuan Township, Taoyuan County 33759,
Taiwan, R.O.C.

Number : TWNC00631564

Date : Sep 06, 2017

Sample Description:

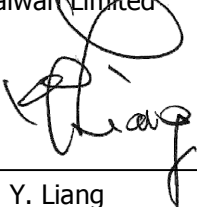
Two (2) groups of submitted samples said to be :

Item Name : Rawhide Leather Lace
Item No. : -
Lot No. : -
P.O. No. : -
Color : (A) Red, (B) White
Season : S18-F18
Sample Quantity : 2 Groups
Agent : -
Factory : -
Buyer : Wolverine World Wide Inc.
Labeled Age Group : -
Applicant's Specified Age Group : Adults
Appropriate Age Group For Testing : -
Country Of Origin : Taiwan
Date Sample Received : Aug 30, 2017
Date Test Started : Aug 30, 2017

Test Conducted:

As requested by the applicant, for details refer to attached page(s).

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Assistant General Manager



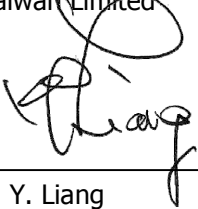
Test Report

Number : TWNC00631564

Conclusion:

<u>Tested Sample</u>	<u>Standard</u>	<u>Result</u>
Submitted Samples	As Per Wolverine World Wide's Requirement Version 1.7.1	
	- Detection of Amines in Dyestuff	Pass
	- Formaldehyde Content	Pass
	- Chromium (VI) Content	Pass
	- Total Cadmium (Cd) Content	Pass
	- Total Lead (Pb) Content	Pass
	- Organotin Content	Pass
	- Pentachlorophenol (PCP) and Tetrachlorophenol (TeCP) Content	Pass
	- Dimethyl Fumarate(DMFU) Content	Pass
	- Nonylphenol (NP), Octylphenol (OP), Nonylphenol Ethoxylates (NPEO) and Octylphenol Ethoxylates (OPEO) Content	Pass

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Assistant General Manager



Test Conducted :

1. Detection of Amines in Dyestuff

By Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

Test Method : Leather Method (EN ISO 17234-1 : 2010)

	<u>Forbidden</u>	<u>CAS No.</u>	<u>Result</u> <u>(A/B)</u>
1.	4-Aminodiphenyl	92-67-1	N
2.	Benzidine	92-87-5	N
3.	4-Chloro-O-Toluidine	95-69-2	N
4.	2-Naphthylamine	91-59-8	N
5.	O-Aminoazotoluene	97-56-3	N
6.	2-Amino-4-Nitrotoluene	99-55-8	N
7.	P-Chloroaniline	106-47-8	N
8.	2,4-Diaminoanisole	615-05-4	N
9.	4,4'-Diaminodiphenylmethane	101-77-9	N
10.	3,3'-Dichlorobenzidine	91-94-1	N
11.	3,3'-Dimethoxybenzidine	119-90-4	N
12.	3,3'-Dimethylbenzidine	119-93-7	N
13.	3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	N
14.	P-Cresidine	120-71-8	N
15.	4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	N
16.	4,4'-Oxydianiline	101-80-4	N
17.	4,4'-Thiodianiline	139-65-1	N
18.	O-Toluidine	95-53-4	N
19.	2,4-Toluylenediamine	95-80-7	N
20.	2,4,5-Trimethylaniline	137-17-7	N
21.	O-Anisidine	90-04-0	N
22.	P-Aminoazobenzene	60-09-3	N
23.	2,4-Xylidine	95-68-1	N
24.	2,6-Xylidine	87-62-7	N

Limit : 30 ppm

Remarks : N = Not detected
Detection limit = 5 ppm
ppm = Parts per million = mg/kg
The results of additional amines (23-24) are reported for reference only.



Test Conducted :

2. Formaldehyde Content

As Per ISO 14184-1:2011(for Textile) and ISO 17226-1(for Leather), by UV-Vis Spectrophotometer (UV-VIS) and High Performance Liquid Chromatography-Photodiode Array Detector (HPLC-DAD) analysis.

<u>Tested Sample</u> (A/B)	<u>Result (ppm)</u> ND
-------------------------------	---------------------------

Limit : 75 ppm (>36 months skin contact)
300 ppm (>36 months no-skin contact)

Remarks : ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 5 ppm

3. Chromium (VI) Content

Samples were conditioned at 80°C for 24 hours with 20% humidity. With reference to EN ISO 17075:2007 and determined by UV-Vis Spectrophotometer (UV-VIS).

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>Limit (ppm)</u>
(A)	ND	3
(B)	ND	3

Remarks : ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 0.5 ppm

4. Total Cadmium (Cd) Content

Acid digestion method was used and total content was determined by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES).

<u>Tested Sample</u> (A/B)	<u>Result (ppm)</u> ND	<u>Limit (ppm)</u> 100
-------------------------------	---------------------------	---------------------------

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 5 ppm



Test Conducted :

5. Total Lead (Pb) Content

Acid digestion method was used and total content was determined by Atomic Absorption Spectrophotometer (AAS).

<u>Tested Sample</u> (A/B)	<u>Result (ppm)</u> ND	<u>Limit (ppm)</u> 100
-------------------------------	---------------------------	---------------------------

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 20 ppm

6. Organotin Content

With reference to ISO/TS 16179:2012, by solvent extraction and Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

<u>Compound</u>	<u>Result (ppm)</u> (A/B)	<u>Limit (ppm)</u>
Tributyltin (TBT)	ND	0.5
Triphenyltin (TPhT)	ND	0.5
Dibutyltin (DBT)	ND	1000
Dioctyltin (DOT)	ND	1000
Sum of Tri substituted tin compounds^	ND	1000

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
^ = Tri-substituted organotin including Tributyltin (TBT), Triphenyltin (TPhT), Trimethyltin (TMT), Trioctyltin (TOT), and Tricyclohexyltin (TCyT)
Detection limit = 0.05 ppm



Test Conducted :

7. Pentachlorophenol (PCP) and Tetrachlorophenol (TeCP) Content

With reference to LFGB B 82.02-8 (for Textile), ISO 17070(for Leather) and DIN 53313(for Wood), by solvent extraction and determined by Gas Chromatography-Mass Spectrometer (GC-MS).

<u>Compound</u>	<u>Result (ppm)</u> <u>(A/B)</u>	<u>Limit (ppm)</u>
Pentachlorophenol (PCP)	ND	5
Tetrachlorophenol (TeCP)	ND	0.5

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 0.05 ppm

8. Dimethyl Fumarate (DMFU) Content

By solvent extraction and Gas Chromatography-Mass Spectrometer (GC-MS) Analysis.

<u>Tested Sample</u> <u>(A/B)</u>	<u>Result (ppm)</u> ND	<u>Limit (ppm)</u> 0.1

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 0.1 ppm

9. Nonylphenol (NP), Octylphenol (OP), Nonylphenol Ethoxylates (NPEO) and Octylphenol Ethoxylates (OPEO) Content

By solvent extraction and followed by Liquid Chromatography /Tandem Mass Spectrometer (LC-MS-MS).

<u>Compound</u>	<u>Result (ppm)</u> <u>(A/B)</u>	<u>Limit (ppm)</u>
Nonylphenol (NP)	ND	100
Octylphenol (OP)	ND	100
Nonylphenol Ethoxylates (NPEO)	ND	100
Octylphenol Ethoxylates (OPEO)	ND	100

Remarks: ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 10 ppm





End of Report

Except where explicitly agreed in writing, all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: <http://www.intertek-twn.com/terms/>. Intertek's responsibility and liability are limited to the terms and conditions of the agreement.

This report is made solely on the basis of your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the sample source. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. You are the only one authorized to permit copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of the report solely at their own risk.



Test Report

Number : TWNC00631565

Applicant: CHEN TONG LEATHER CO., LTD.
No. 111-1, Minsheng Rd.,
Dayuan Township, Taoyuan County 33759,
Taiwan, R.O.C.

Date : Sep 07, 2017

Sample Description:

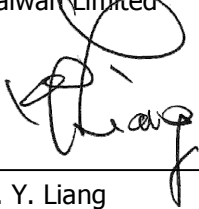
Three (3) groups of submitted samples said to be :

Item Name : Rawhide Leather Lace
Item No. : -
Lot No. : -
P.O. No. : -
Color : (A) Yellow, (B) Black, (C) Blue
Season : S18-F18
Sample Quantity : 3 Groups
Agent : -
Factory : -
Buyer : Wolverine World Wide Inc.
Labeled Age Group : -
Applicant's Specified Age Group : Adults
Appropriate Age Group For Testing : -
Country Of Origin : Taiwan
Date Sample Received : Aug 30, 2017
Date Test Started : Aug 30, 2017

Test Conducted:

As requested by the applicant, for details refer to attached page(s).

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Assistant General Manager



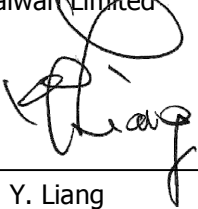
Test Report

Number : TWNC00631565

Conclusion:

<u>Tested Sample</u>	<u>Standard</u>	<u>Result</u>
Submitted Samples	As Per Wolverine World Wide's Requirement Version 1.7.1	
	- Detection of Amines in Dyestuff	Pass
	- Formaldehyde Content	Pass
	- Chromium (VI) Content	Pass
	- Total Cadmium (Cd) Content	Pass
	- Total Lead (Pb) Content	Pass
	- Organotin Content	Pass
	- Pentachlorophenol (PCP) and Tetrachlorophenol (TeCP) Content	Pass
	- Dimethyl Fumarate(DMFU) Content	Pass
	- Nonylphenol (NP), Octylphenol (OP), Nonylphenol Ethoxylates (NPEO) and Octylphenol Ethoxylates (OPEO) Content	Pass

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Assistant General Manager



Page 2 of 7

Intertek Testing Services Taiwan Ltd.

8F., No. 423, Ruiguang Rd., Neihu District, Taipei 11492, Taiwan, R.O.C.

全國公證檢驗股份有限公司

11492 台北市內湖區瑞光路 423 號 8 樓

Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2405



Test Conducted :

1. Detection of Amines in Dyestuff

By Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

Test Method : Leather Method (EN ISO 17234-1 : 2010)

	<u>Forbidden</u>	<u>CAS No.</u>	<u>Result</u> <u>(A/B/C)</u>
1.	4-Aminodiphenyl	92-67-1	N
2.	Benzidine	92-87-5	N
3.	4-Chloro-O-Toluidine	95-69-2	N
4.	2-Naphthylamine	91-59-8	N
5.	O-Aminoazotoluene	97-56-3	N
6.	2-Amino-4-Nitrotoluene	99-55-8	N
7.	P-Chloroaniline	106-47-8	N
8.	2,4-Diaminoanisole	615-05-4	N
9.	4,4'-Diaminodiphenylmethane	101-77-9	N
10.	3,3'-Dichlorobenzidine	91-94-1	N
11.	3,3'-Dimethoxybenzidine	119-90-4	N
12.	3,3'-Dimethylbenzidine	119-93-7	N
13.	3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	N
14.	P-Cresidine	120-71-8	N
15.	4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	N
16.	4,4'-Oxydianiline	101-80-4	N
17.	4,4'-Thiodianiline	139-65-1	N
18.	O-Toluidine	95-53-4	N
19.	2,4-Toluylenediamine	95-80-7	N
20.	2,4,5-Trimethylaniline	137-17-7	N
21.	O-Anisidine	90-04-0	N
22.	P-Aminoazobenzene	60-09-3	N
23.	2,4-Xylidine	95-68-1	N
24.	2,6-Xylidine	87-62-7	N

Limit : 30 ppm

Remarks : N = Not detected
Detection limit = 5 ppm
ppm = Parts per million = mg/kg
The results of additional amines (23-24) are reported for reference only.



Test Conducted :

2. Formaldehyde Content

As Per ISO 14184-1:2011(for Textile) and ISO 17226-1(for Leather), by UV-Vis Spectrophotometer (UV-VIS) and High Performance Liquid Chromatography-Photodiode Array Detector (HPLC-DAD) analysis.

<u>Tested Sample</u> (A/B/C)	<u>Result (ppm)</u> ND
---------------------------------	---------------------------

Limit : 75 ppm (>36 months skin contact)
300 ppm (>36 months no-skin contact)

Remarks : ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 5 ppm

3. Chromium (VI) Content

Samples were conditioned at 80°C for 24 hours with 20% humidity. With reference to EN ISO 17075:2007 and determined by UV-Vis Spectrophotometer (UV-VIS).

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>Limit (ppm)</u>
(A)	ND	3
(B)	ND	3
(C)	ND	3

Remarks : ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 0.5 ppm

4. Total Cadmium (Cd) Content

Acid digestion method was used and total content was determined by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES).

<u>Tested Sample</u> (A/B/C)	<u>Result (ppm)</u> ND	<u>Limit (ppm)</u> 100
---------------------------------	---------------------------	---------------------------

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 5 ppm



Test Conducted :

5. Total Lead (Pb) Content

Acid digestion method was used and total content was determined by Atomic Absorption Spectrophotometer (AAS).

<u>Tested Sample</u> (A/B/C)	<u>Result (ppm)</u> ND	<u>Limit (ppm)</u> 100
---------------------------------	---------------------------	---------------------------

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 20 ppm

6. Organotin Content

With reference to ISO/TS 16179:2012, by solvent extraction and Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

<u>Compound</u>	<u>Result (ppm)</u> (A/B/C)	<u>Limit (ppm)</u>
Tributyltin (TBT)	ND	0.5
Triphenyltin (TPhT)	ND	0.5
Dibutyltin (DBT)	ND	1000
Dioctyltin (DOT)	ND	1000
Sum of Tri substituted tin compounds^	ND	1000

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
^ = Tri-substituted organotin including Tributyltin (TBT), Triphenyltin (TPhT), Trimethyltin (TMT), Trioctyltin (TOT), and Tricyclohexyltin (TCyT)
Detection limit = 0.05 ppm



Test Conducted :

7. Pentachlorophenol (PCP) and Tetrachlorophenol (TeCP) Content

With reference to LFGB B 82.02-8 (for Textile), ISO 17070(for Leather) and DIN 53313(for Wood), by solvent extraction and determined by Gas Chromatography-Mass Spectrometer (GC-MS).

<u>Compound</u>	<u>Result (ppm)</u> <u>(A/B/C)</u>	<u>Limit (ppm)</u>
Pentachlorophenol (PCP)	ND	5
Tetrachlorophenol (TeCP)	ND	0.5

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 0.05 ppm

8. Dimethyl Fumarate (DMFU) Content

By solvent extraction and Gas Chromatography-Mass Spectrometer (GC-MS) Analysis.

<u>Tested Sample</u> <u>(A/B)</u> <u>(C)</u>	<u>Result (ppm)</u> <u>ND</u> <u>ND</u>	<u>Limit (ppm)</u> <u>0.1</u> <u>0.1</u>

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 0.1 ppm

9. Nonylphenol (NP), Octylphenol (OP), Nonylphenol Ethoxylates (NPEO) and Octylphenol Ethoxylates (OPEO) Content

By solvent extraction and followed by Liquid Chromatography /Tandem Mass Spectrometer (LC-MS-MS).

<u>Compound</u>	<u>Result (ppm)</u> <u>(A/B/C)</u>	<u>Limit (ppm)</u>
Nonylphenol (NP)	ND	100
Octylphenol (OP)	ND	100
Nonylphenol Ethoxylates (NPEO)	ND	100
Octylphenol Ethoxylates (OPEO)	ND	100

Remarks: ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 10 ppm





End of Report

Except where explicitly agreed in writing, all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: <http://www.intertek-twn.com/terms/> . Intertek's responsibility and liability are limited to the terms and conditions of the agreement.

This report is made solely on the basis of your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the sample source. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. You are the only one authorized to permit copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of the report solely at their own risk.

