

Test Report

Number : TWNC00549754

Applicant: Taiwan Additive Chemical Co., Ltd.
1F., No.146, Minzu Rd., Linkou Dist.,
New Taipei City 24462, Taiwan

Date : Oct 03, 2016

Sample Description:

One (1) piece of submitted sample said to be :
Item Name : Silicone Ink
Item No. : LT-Color 8D(100, 101, 102, 103, 205, 136)
Quantity : 1 Piece
Country of Origin : Taiwan
Date Sample Received : Sep 19, 2016
Date Test Started : Sep 20, 2016

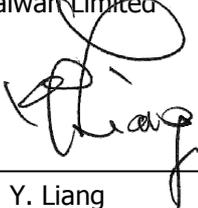
Test Conducted:

As requested by the applicant, for details please refer to attached pages.

Conclusion:

<u>Tested Samples</u>	<u>Standard</u>	<u>Result</u>
Submitted Sample	As Per Applicant's Provided Requirement	
	– Sum of NP and OP	Pass
	– Sum of NP, OP, NPEO, and OPEO	Pass
	– Azo Dyes	Pass
	– Disperse Dyess (Carcinogenic, Allergenic, and Other Dyes)	Pass
	– Formaldehyde Content	Pass
	– Total Cadmium (Cd) Content In Surface Coating	Pass
	– Total Lead (Pb) Content In Surface Coating	Pass
	– Total Mercury (Hg) Content	Pass
	– Phthalates	Pass

Authorized by:
On Behalf of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Director





Number : TWNC00549754

Test Conducted :

1. Alkylphenol and Alkylphenol Ethoxylates (NP, OP, NPEO, and OPEO) Content

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

<u>Compound</u>	<u>Result (ppm)</u> <u>Red Silicone Ink</u>	<u>Limit# (ppm)</u>
Nonylphenol (NP)	ND	--
Octylphenol (OP)	ND	--
Nonylphenol Ethoxylates (NPEO)	ND	--
Octylphenol Ethoxylates (OPEO)	ND	--
Sum of NP and OP	ND	10
Sum of NP, OP, NPEO, and OPEO	ND	250

Remarks: ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = NP, OP: 10 ppm
 NPEO, OPEO: 50 ppm
= As per applicant's provided requirement





Number : TWNC00549754

Test Conducted :

2. Azo Dyes

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

Test Method : Textile Method (EN 14362-1 : 2012)

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

Limit#: 20 ppm

Remarks : N = Not detected
Detection limit = 5 ppm
ppm = Parts per million = mg/kg
= As per applicant's provided requirement



Page 3 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) 6602-2410



Number : TWNC00549754

Test Conducted :

3. Disperse Dyes (Carcinogenic, Allergenic, and Other Dyes)

As per DIN 54231, by Liquid Chromatography /Tandem Mass Spectrometer (LC-MS-MS) analysis.

<u>Compound</u>	<u>Result (mg/l In Extract)</u>
	<u>Red Silicone Ink</u>
Acid Red 26	ND
Basic Red 9	ND
Basic Violet 14	ND
Direct Black 38	ND
Direct Blue 6	ND
Direct Red 28	ND
Disperse Blue 1	ND
Disperse Blue 3	ND
Disperse Blue 7	ND
Disperse Blue 26	ND
Disperse Blue 35	ND
Disperse Blue 102	ND
Disperse Blue 106	ND
Disperse Blue 124	ND
Disperse Brown 1	ND
Disperse Orange 1	ND
Disperse Orange 3	ND
Disperse Orange 11	ND
Disperse Orange 37/59/76	ND
Disperse Orange 149	ND
Disperse Red 1	ND
Disperse Red 11	ND
Disperse Red 17	ND
Disperse Yellow 1	ND
Disperse Yellow 3	ND
Disperse Yellow 9	ND
Disperse Yellow 23	ND
Disperse Yellow 39	ND
Disperse Yellow 49	ND

Limit# : 5 mg/l in extract

Remarks : mg/l = Milligram per liter
Reporting limit = 1 mg/l in extract
ND = Not detected
= As per applicant's provided requirement



Page 4 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) 6602-2410



Number : TWNC00549754

Test Conducted :

4. Formaldehyde Content

As per ISO 14184-1 (for textile) or ISO 17226-2 (for leather) or GB 18583 (For painting/coating), by UV-Vis Spectrophotometer (UV-VIS) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>
Red Silicone Ink	ND

Limit#: 16 ppm (For Infant and children less than 36 months)
75 ppm (For Adult and children greater than 36 months)

Remarks : ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 16 ppm
= As per applicant's provided requirement

5. Total Cadmium (Cd) and Total Lead (Pb) Content In Surface Coating

According to CPSIA Test Method: CPSC-CH-E1003-09.1, by microwave digestion and Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES) analysis.

<u>Compound</u>	<u>Result (ppm)</u>	<u>Limit# (ppm)</u>
	<u>Red Silicone Ink</u>	
Total Cadmium (Cd)	ND	50
Total Lead (Pb)	ND	90

Remarks: ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 5 ppm
= As per applicant's provided requirement

6. Total Mercury (Hg) Content

By microwave digestion method and by Inductively Coupled Plasma-Mass Spectrometer (ICP-MS) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>Limit# (ppm)</u>
Red Silicone Ink	ND	1

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Reporting limit = 0.1 ppm
= As per applicant's provided requirement





Number : TWNC00549754

Test Conducted :

7. Phthalates

According to CPSIA Test Method: CPSC-CH-C1001-09.3, by solvent extraction and Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Red Silicone Ink</u>	<u>Limit# (ppm)</u>
Di-n-butyl phthalate (DBP)	ND	--
Butyl benzyl phthalate (BBP)	ND	--
Di-2-ethylhexyl phthalate (DEHP)	ND	--
Di-n-octyl phthalate (DNOP)	ND	--
Di-iso-decyl Phthalate (DIDP)	ND	--
Di-iso-nonyl Phthalate (DINP)	ND	--
Di-iso-butyl phthalate (DIBP)	ND	--
Di-n-hexyl phthalate(DnHP)	ND	--
Dimethyl phthalate (DMP)	ND	--
Diethyl phthalate (DEP)	ND	--
Sum of above 10 phthalates	ND	1000

Remarks: ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 50 ppm
= As per applicant's provided requirement





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.

