

# TEST REPORT

NO.:NKR17102700301A-E

Date:Nov. 02, 2017

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**Consignor** : BANDL(KUNSHAN)INTERNATIONAL CORPORATION(TONGLONG PLATING)

**Address** : NO.1698, ZIZHU ROAD, KUNSHAN CITY, JIANGSU PROVINCE

**The consignor of the sample information stated to be**

**Sample name** : Matte of Barrel Plating

**Model** : /

**Material** : /

**Description** : Silver white metal part

**Sample received date** : Oct. 27, 2017

**Testing period** : From Oct. 27, 2017 to Nov. 02, 2017

**Sample description** : Metal Plating

**Testing Requested :**

- 1.According to 2011/65/EU, Lead, Cadmium, Mercury, Hexavalent chromium,PBBs & PBDEs, DBP, BBP, DEHP(DOP) and DIBP content test of the sample were carried out.
- 2.According to the client's requirement, Fluorine, Chlorine, Bromine and Iodine content of the sample were carried out.
- 3.According to (EU)NO 757/2010, PFOS content of the sample was carried out.
- 4.According to POHS, PFOA content of the sample was carried out.
- 5.According to the client's requirement, Sb, Be content of the sample was carried out.

**Testing Method :**

Test Item	Test Method	Test Instrument
Lead (Pb) , Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
Mercury (Hg)	IEC 62321-4:2013	ICP-OES
PBBs&PBDEs	IEC 62321-6:2015	GC-MS
Hexavalent chromium (Cr <sup>6+</sup> )	IEC 62321-7-1:2015	UV-VIS
DBP, BBP, DEHP(DOP), DIBP	IEC 62321-8:2017	GC-MS
Fluorine(F), Chlorine(Cl), Bromine(Br)、Iodine (I)	BS EN 14582:2016	IC
PFOS	US EPA 3550C:2007	LC-MS
PFOA	US EPA 3550C:2007	LC-MS
Sb, Be	US EPA 6010D:2014	ICP-OES

\*\*\*\*\*FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S)\*\*\*\*\*

Signed for and on behalf of  
Kunshan NTEK Testing Technology Co., Ltd.

Compiled by: Dana

Reviewed by: Roy

Approved by: Summer

Report Clerk: Feng Liting, Dana

Project Leader: Zhang Shuanglei, Roy

Authorized Signatories: Guo Fu, Summer

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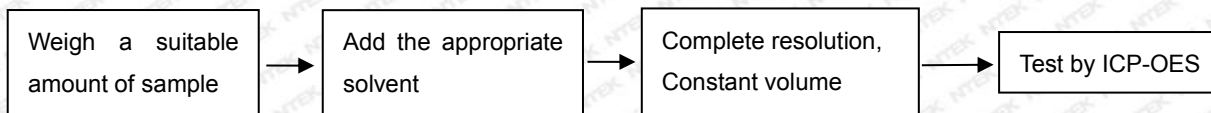
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**Testing Flow:**

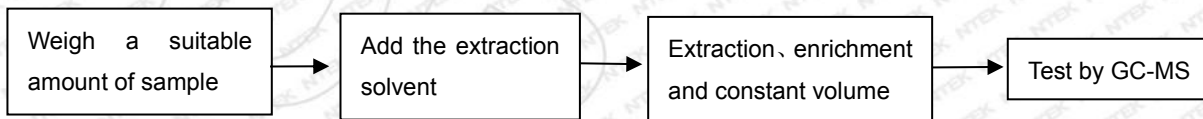
1. Test item: Lead, Cadmium and Mercury

Tested by: *Roy*



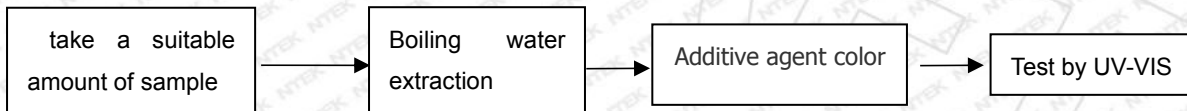
2. Test item: PBBs/PBDEs

Tested by: *Jennifer*



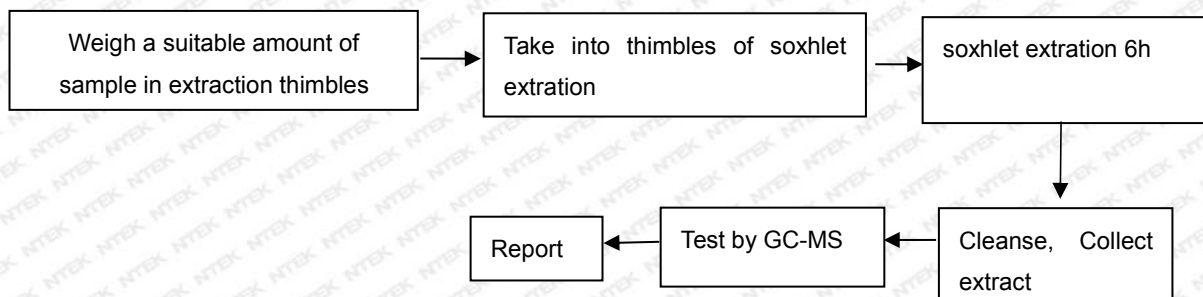
3. Test item: Hexavalent Chromium

Tested by: *Roy*



4. Test item: four phthalates (DEHP, BBP, DBP, DIBP).

Tested by: *Jennifer*



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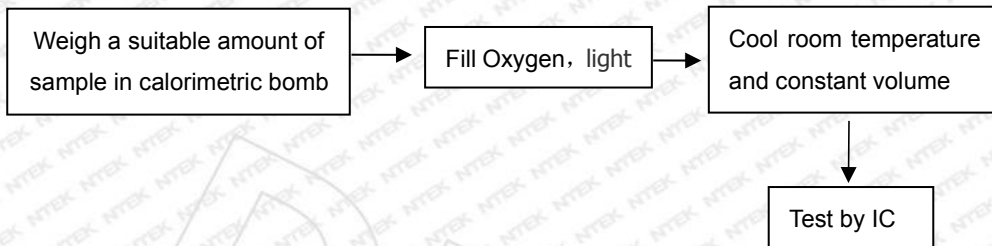
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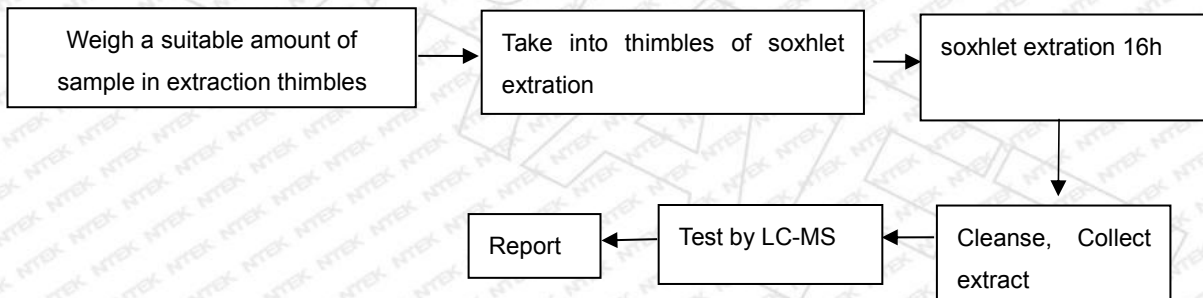
5. Test item: fluorine, chlorine, bromine and iodine

Tested by: *Roy*



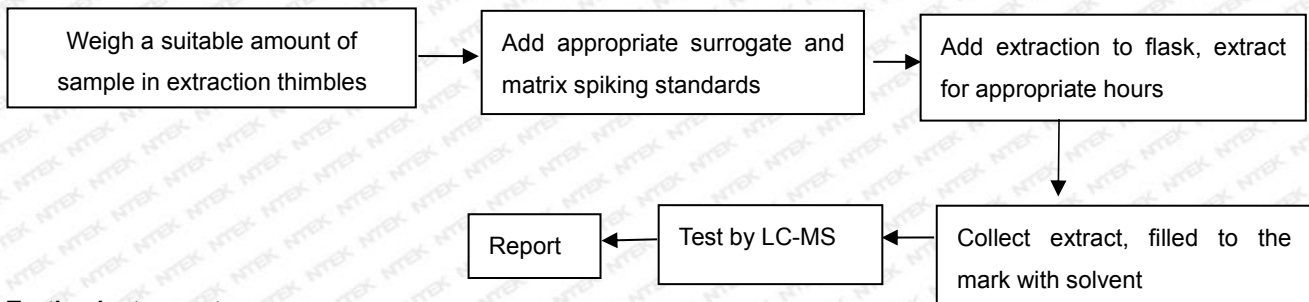
6. Test Item: PFOS

Tested by: *Jennifer*



7. Test Item: PFOA

Tested by: *Jennifer*



**Testing instrument:**

Instrument name	Instrument manufacturers	Instrument model	Number of instrument
ICP-OES	Varian	710	E-RH-T001
GC-MS	SHIMADZU	QP2010plus	E-RH-T002
UV-VIS	Beijing Puxi	TU-1901	E-RH-T004
IC	Shanghai Tianmei	IC1010	E-RH-T011
LC-MS	THERMO	LCQ	E-RH-T023
GC-MS	SHIMADZU	QP2010	E-RH-T012

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## Testing Results:

### 1. RoHs 2.0

Test item	Limit (mg/kg)	MDL (mg/kg)	Results# (mg/kg)
Lead (Pb)	1000	2	74
Cadmium (Cd)	100	2	N.D.
Mercury (Hg)	1000	2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> )	1000	2	N.D.

Test item	Limit (mg/kg)	MDL (mg/kg)	Results# (mg/kg)
PBBs	1000	/	N.D.
MonoBB	/	5	N.D.
DiBB	/	5	N.D.
TriBB	/	5	N.D.
TetraBB	/	5	N.D.
PentaBB	/	5	N.D.
HexaBB	/	5	N.D.
HeptaBB	/	5	N.D.
OctaBB	/	5	N.D.
NonaBB	/	5	N.D.
DecaBB	/	5	N.D.
PBDEs	1000	/	N.D.
MonoBDE	/	5	N.D.
DiBDE	/	5	N.D.
TriBDE	/	5	N.D.
TetraBDE	/	5	N.D.
PentaBDE	/	5	N.D.
HexaBDE	/	5	N.D.
HeptaBDE	/	5	N.D.
OctaBDE	/	5	N.D.
NonaBDE	/	5	N.D.
DecaBDE	/	5	N.D.

Test item	CAS.NO.	MDL (mg/kg)	Limit (mg/kg)	Results# (mg/kg)
Diethylhexyl phthalate (DEHP) (DOP)	117-81-7	10	1000	N.D.
Butyl benzyl phthalate (BBP)	85-68-7	10	1000	N.D.
Dibutyl phthalate (DBP)	84-74-2	10	1000	N.D.
Diisobutyl phthalate(DIBP)	84-69-5	10	1000	N.D.

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## 2. Halogen

Test item	Limit (mg/kg)	MDL (mg/kg)	Results# (mg/kg)
Fluorine (F)	/	50	N.D.
Chlorine (Cl)	900	50	N.D.
Bromine (Br)	900	50	N.D.
Iodine (I)	/	50	N.D.
Total (chlorine + bromine)	1500	/	N.D.

## 3. PFOS, PFOA

Test item	Limit (mg/kg)	MDL (mg/kg)	Results# (mg/kg)
PFOS	See Note	10	N.D.
PFOA	50	5	N.D.

## 4. Sb, Be

Test item	MDL (mg/kg)	Results# (mg/kg)
Sb	10	N.D.
Be	2	N.D.

### Note:

1.\*The note of Hexavalent Chromium

Item	MDL (µg/cm <sup>2</sup> )	Cr <sup>6+</sup> concentration (µg/cm <sup>2</sup> )	Result
Hexavalent Chromium(Cr <sup>6+</sup> )	0.10	<0.10	Negative (Absence)
		0.10~0.13	Not Determinable
		>0.13	Positive (Presence)

2.N.D.=Not detected(<MDL)

3.MDL=Method Detection Limit

4.#Testing part--Sliver plating

The test is based on the following assumption: The sample plating is a single layer and each part is uniform. The test result maybe cannot stand for the physical truth of sample plating.

5.Reference information: Directive (EU) NO 757/2010

1)May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.001% by mass.

2)May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1% by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than 1ug/m<sup>2</sup> of the coated material.

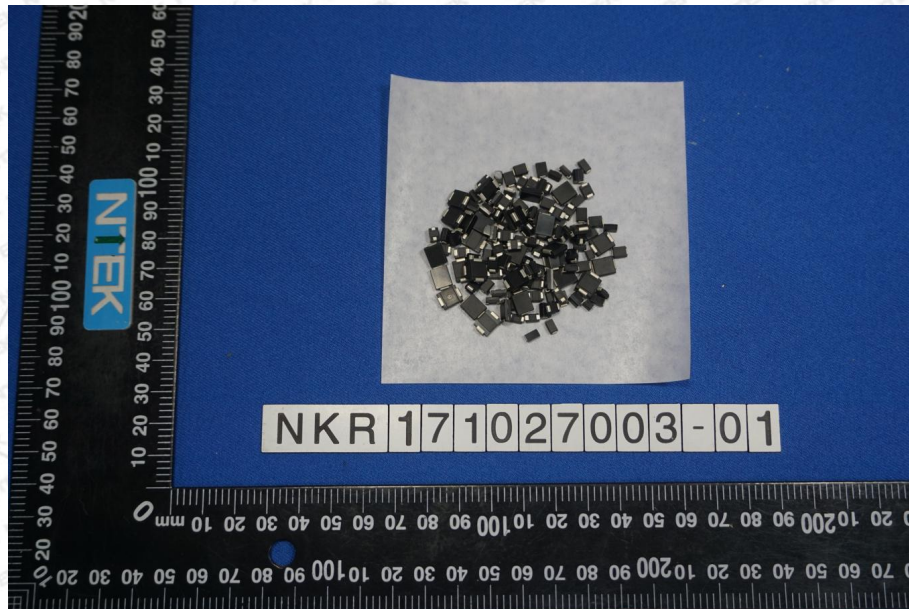
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## Photograph of Sample



\*\*\*End of Report\*\*\*

### Report statement:

The test report is invalid without the signature of the authorized person and the special seal of the report, the test sample in this report is provided and confirmed by the customer, the test result is only responsible for the test sample. Shall not copy part of this report.