

## Test Report

No. : CT/2017/50479B

Date : 2017/05/31

Page: 1 of 4

TIPRO CO., LTD  
NO.85, LN 166, XIQUAN RD., SHENGANG TOWNSHIP,  
CHANGHUA COUNTY (509), TAIWAN



The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

Sample Submitted By : TIPRO CO., LTD  
Sample Description : TITANIUM SPORK  
Style/Item No. : TKF-222  
Sample Material : TITANIUM  
Sample Receiving Date : 2017/05/15  
Testing Period : 2017/05/15 TO 2017/05/24

=====  
**Test Requested** : As specified by client, the sample(s) was/were tested with reference to Technical Guide on Metals and alloys used in food contact materials of Council of Europe Resolution CM/Res(2013)9, LFGB Section 30 & 31, Regulation (EC) No. 1935/2004.  
- Extractable heavy metals  
**Test Method** : With reference to EN 13130-1 (2004). Analysis was performed by ICP-MS, ICP-AES.  
**Test Result(s)** : Please refer to following pages.  
**Summary** : Metal / Metallic coating - Extractable heavy metals **PASS**

  
Singh Hsiao / Supervisor  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

# Test Report

No. : CT/2017/50479B

Date : 2017/05/31

Page: 2 of 4

TIPRO CO., LTD  
NO.85, LN 166, XIQUAN RD., SHENGANG TOWNSHIP,  
CHANGHUA COUNTY (509), TAIWAN



## Test Result(s)

PART NAME No.1 : GRAY METAL

Metal / Metallic coating - Extractable heavy metals (Unit: mg/kg)

PASS

Test Item(s)	RL	Result		7 x SRL	SRL
		No.1			
		1st + 2nd Migration	3rd Migration		
Aluminum (Al)	0.2	5.481	n.d.	35	5
Antimony (Sb)	0.02	n.d.	n.d.	0.28	0.04
Arsenic (As)	0.001	n.d.	n.d.	0.014	0.002
Barium (Ba)	0.25	n.d.	n.d.	8.4	1.2
Beryllium (Be)	0.005	n.d.	n.d.	0.07	0.01
Cadmium (Cd)	0.002	n.d.	n.d.	0.035	0.005
Chromium (Cr)	0.1	n.d.	n.d.	1.75	0.25
Cobalt (Co)	0.01	n.d.	n.d.	0.14	0.02
Copper (Cu)	0.1	n.d.	n.d.	28	4
Lead (Pb)	0.005	n.d.	n.d.	0.07	0.01
Lithium (Li)	0.02	0.0206	n.d.	0.336	0.048
Iron (Fe)	0.25	n.d.	n.d.	280	40
Manganese (Mn)	0.25	n.d.	n.d.	12.6	1.8
Mercury (Hg)	0.002	n.d.	n.d.	0.021	0.003
Molybdenum (Mo)	0.02	n.d.	n.d.	0.84	0.12
Nickel (Ni)	0.05	n.d.	n.d.	0.98	0.14
Silver (Ag)	0.03	n.d.	n.d.	0.56	0.08
Thallium (Tl)	0.0001	n.d.	n.d.	0.0007	0.0001
Vanadium (V)	0.005	0.010	n.d.	0.07	0.01
Titanium (Ti)	0.05	n.d.	n.d.	-	-
Tin (Sn)	5	n.d.	n.d.	700	100
Zinc (Zn)	1	n.d.	n.d.	35	5
Magnesium (Mg)	5	n.d.	n.d.	-	-

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Term-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

## Test Report

No. : CT/2017/50479B

Date : 2017/05/31

Page: 3 of 4

TIPRO CO., LTD  
NO.85, LN 166, XIQUAN RD., SHENGANG TOWNSHIP,  
CHANGHUA COUNTY (509), TAIWAN



### Remark :

- Test condition & simulant were specified by client.
  - Simulant Used : Artificial tap water
  - Test Condition: 100°C, 4 hrs
- The ratio of surface area to volume ratio was 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with.

### Note :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. RL = Reporting Limit
3. n.d. = Not Detected = below RL
4. SRL = Specific Release Limit
5. °C = degree Celsius
6. " - " = Not Regulated
7. According to Council of Europe Resolution CM/Res(2013)9, the result from 3rd migration shall comply with the Specific Release Limit (SRL) and the sum of 1st and 2nd migration shall not exceed seven times of SRL for repeated use articles.

## Test Report

No. : CT/2017/50479B

Date : 2017/05/31

Page: 4 of 4

TIPRO CO., LTD  
NO.85, LN 166, XIQUAN RD., SHENGANG TOWNSHIP,  
CHANGHUA COUNTY (509), TAIWAN



\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

### CT/2017/50479



### CT/2017/50479



\*\* End of Report \*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.