

TEST REPORT

APPLICANT : DUKSAN HI-METAL CO., LTD.
ADDRESS : 66, Muryong 1-ro, Buk-gu,
Ulsan, Korea

PAGE: 1 of 4

REPORT NO. RT20R-U0405-003-E

DATE: Mar. 12, 2020

SAMPLE DESCRIPTION : The following submitted sample(s) said to be:-

NAME/TYPE OF PRODUCT : Sn/1.0Ag/0.5Cu
NAME OF MATERIAL : Metal
SAMPLE ID NO. : RT20R-U0405-003
MANUFACTURER/VENDOR : DUKSAN HI-METAL CO., LTD.

SAMPLE RECEIVED : Mar. 06, 2020
TESTING DATE : Mar. 06, 2020 ~ Mar. 12, 2020

TEST METHOD(S) : Please see the following page(s).
TEST RESULT(S) : Please see the following page(s).

* Note 1 : The test results presented in this report refer only to the object tested.

* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager



Authenticity check

Intertek Testing Services Korea Ltd.
Seoul Office: Tel : 02-6090-9550 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea
Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea



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REPORT NO. RT20R-U0405-003-E

SAMPLE ID NO. : RT20R-U0405-003

SAMPLE DESCRIPTION : Sn/1.0Ag/0.5Cu

TEST ITEM	UNIT	TEST METHOD	MDL	RESULT
Silver (Ag)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	9690
Aluminium (Al)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Arsenic (As)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	8
Gold (Au)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Beryllium (Be)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Bismuth (Bi)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Copper (Cu)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	5480
Iron (Fe)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	13
Germanium (Ge)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	6	73
Indium (In)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Nickel (Ni)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	27
Phosphorus (P)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Palladium (Pd)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.

Tested by : Jooyeon Lee

Notes : mg/kg = ppm = parts per million
 < = Less than
 N.D. = Not detected (<MDL)
 MDL = Method detection limit

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PAGE: 3 of 4
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SAMPLE ID NO. : RT20R-U0405-003

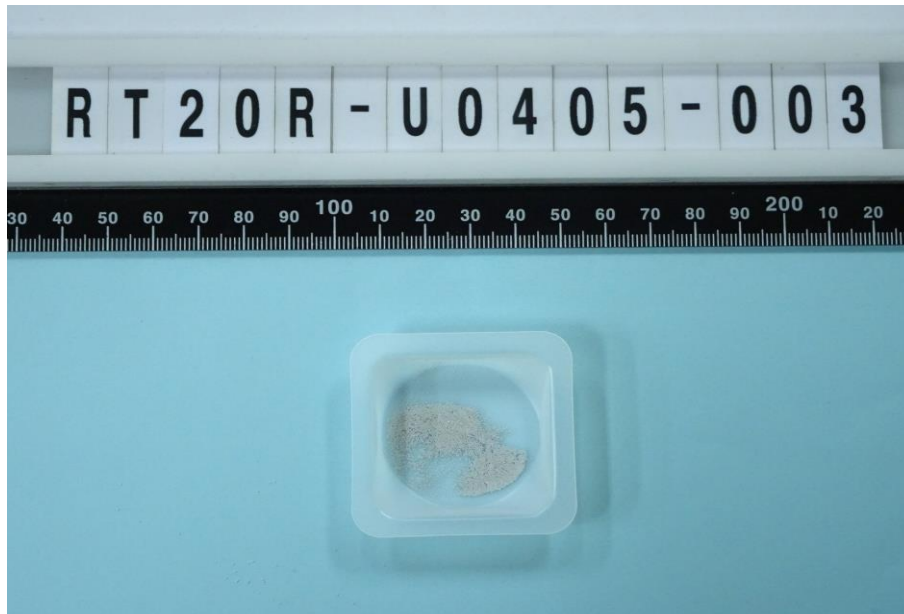
SAMPLE DESCRIPTION : Sn/1.0Ag/0.5Cu

TEST ITEM	UNIT	TEST METHOD	MDL	RESULT
Sulfur (S)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	20	N.D.
Antimony (Sb)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Zinc (Zn)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.

Tested by : Jooyeon Lee

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* View of sample as received;-



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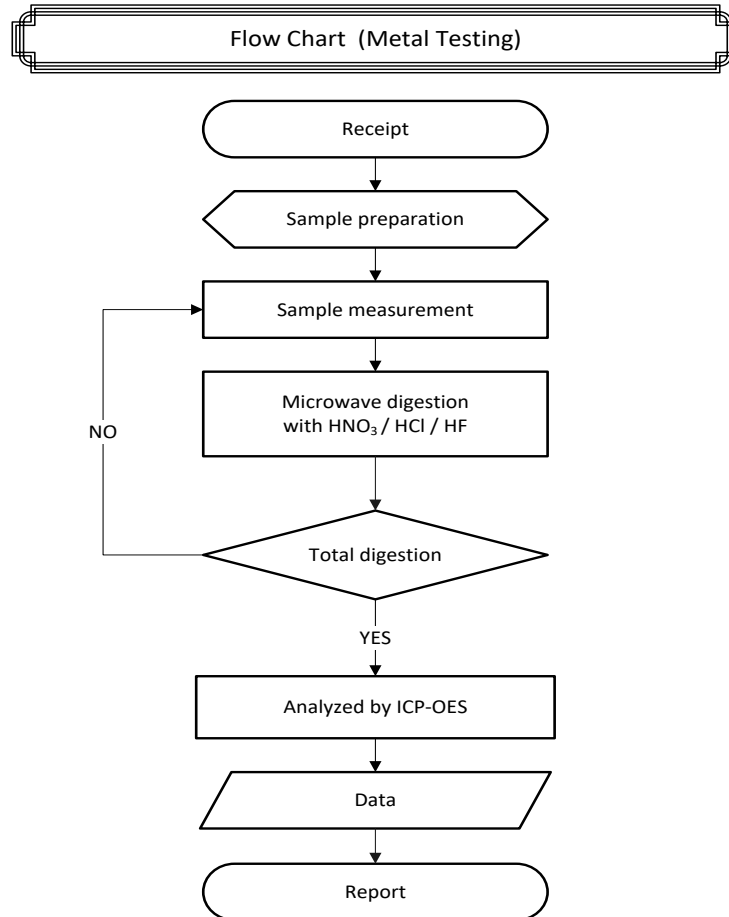
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SAMPLE DESCRIPTION : Sn/1.0Ag/0.5Cu



** Remarks : The samples were dissolved totally by pre-conditioning method according to above flow chart.

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

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