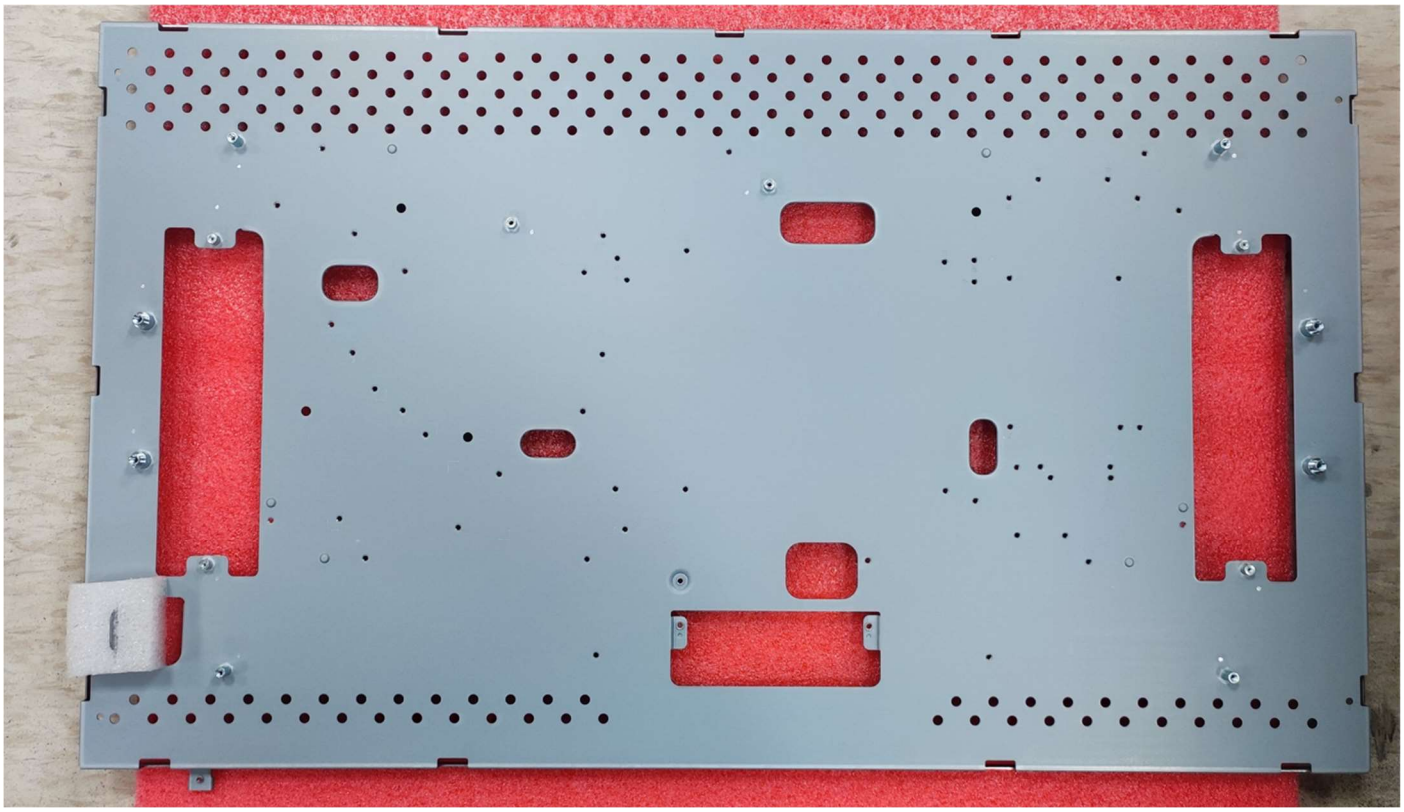
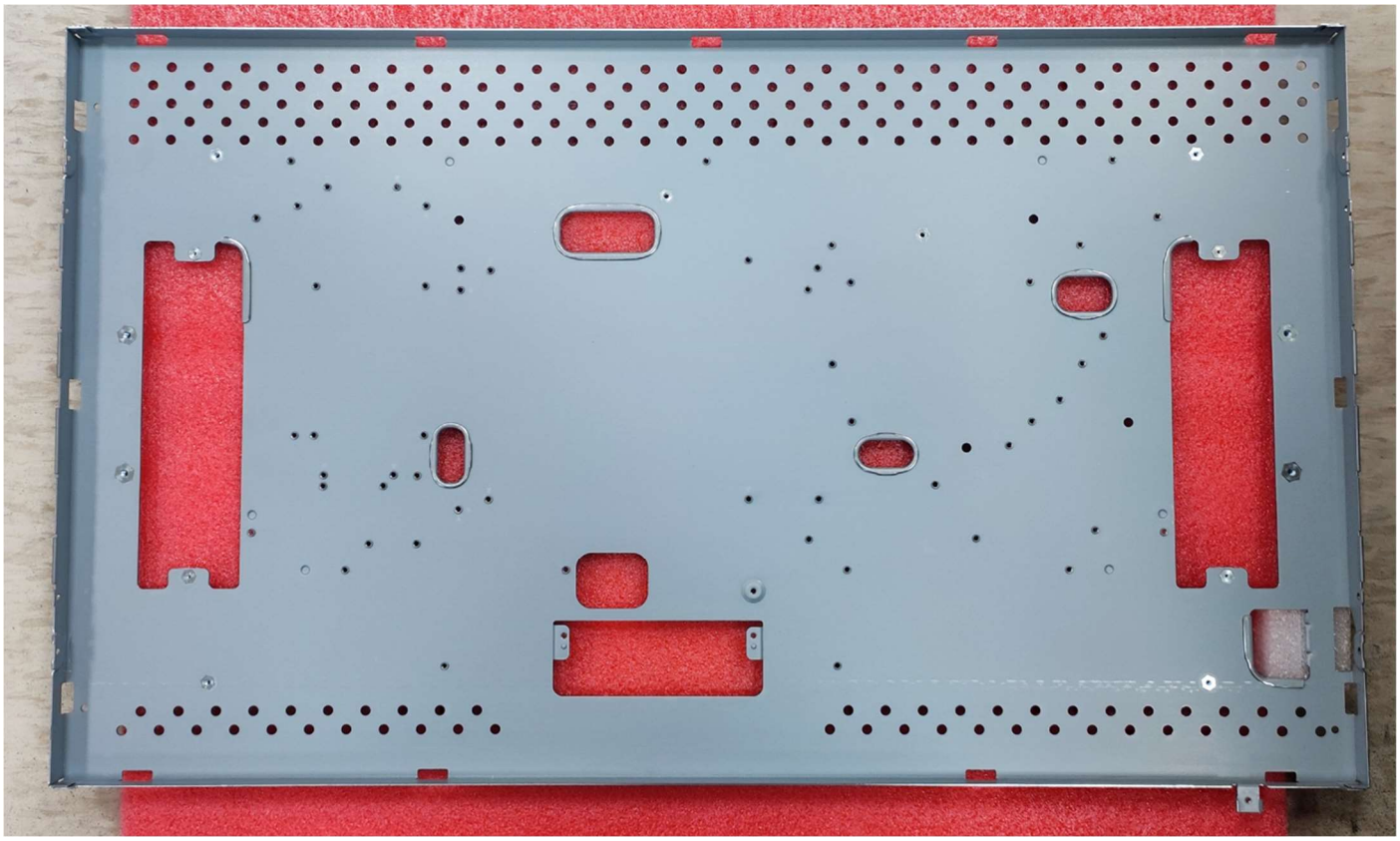




設計驗證
工程課
2024-09-13
發行
鈺緯科技開發股份有限公司

雄業實業股份有限公司

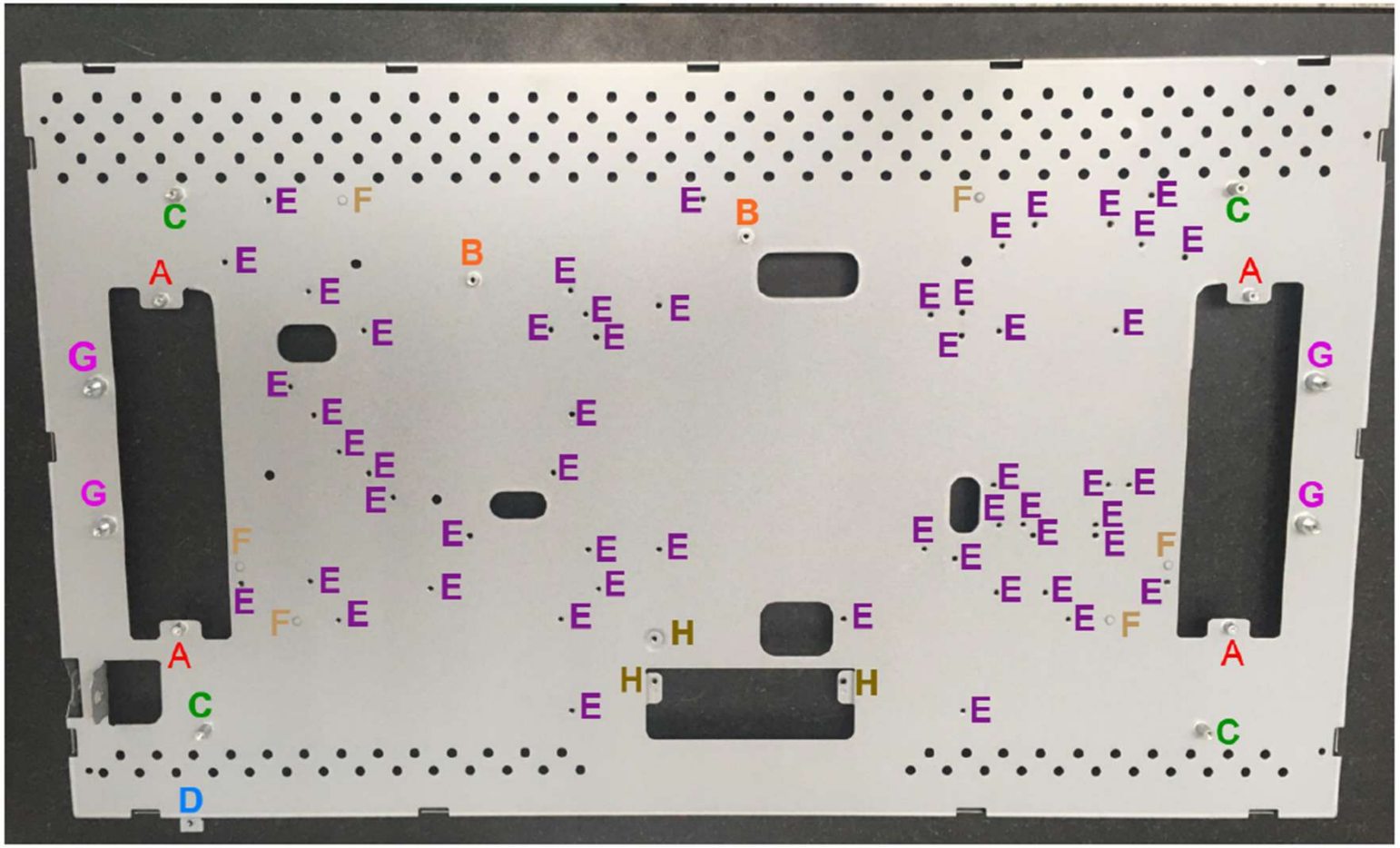
樣 品 承 認 書

雄業實業股份有限公司
TEL:2201-9999
臺北市新莊區新樹路288-10號

客　　戶：	鈺緯科技
料　　號：	3MD364ME02B(M2928)
品　　名：	MAIN BRACKET(27")
日　　期：	113/9/11
送樣數量：	3　　PCS

設計驗證
工程課
2024-09-13
發行
鈺緯科技開發股份有限公司

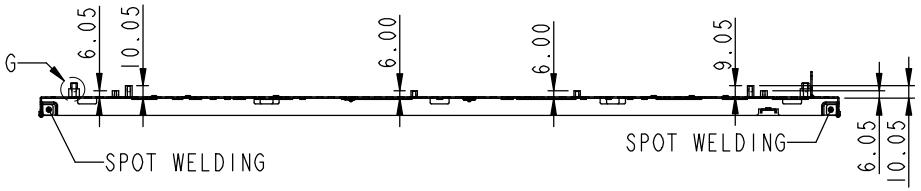
設計驗證
工程課
2024-09-13
發行
廣達科技開發股份有限公司

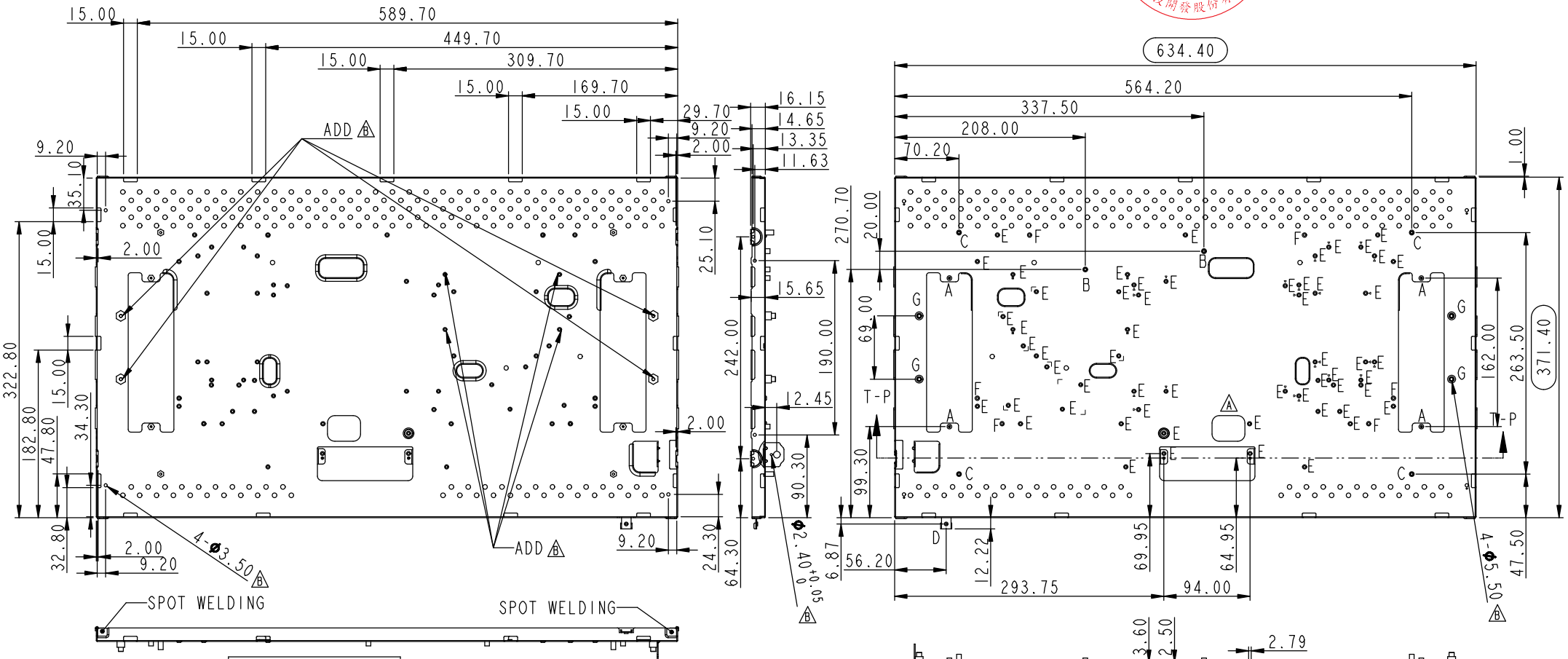


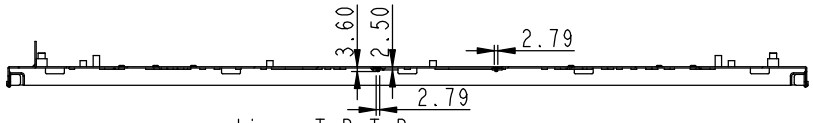
A*4pcs	B*2pcs	C*4pcs	D*1pcs	E*54pcs	F*6pcs	G*4pcs	H*3pcs
Standoff OD5.2*H6.05 -M2	Standoff OD5.2*H6 -M3	Standoff OD5.3*H10.05 -M3	M2.5抽牙孔	M3抽牙孔	PUNCH	Stand off OD8.5/5.5*H12.5-M4	M3抽牙孔
朝後蓋方向	朝後蓋方向	朝後蓋方向	朝後蓋方向抽高	朝pannel方向抽高	朝後蓋方向凸	朝後蓋方向	朝後蓋方向抽高

REV.	DATE	DESCRIPTION	BY	APVD
A	2018.07.24	CANCEL DOWNWARD FOLDING & FLATTENING	Karol	
B	2020.01.03	ADD 4-Ø3.5&Ø2.4&4-M3&2-Ø8.5&Ø5.5*M4*H12.05	Kim	

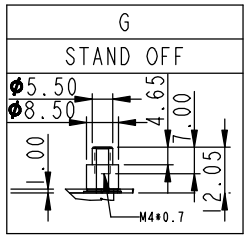
設計驗證
工程課
2024-09-13
發行
廷鏵科技開發股份有限公司







section T-P-T-P



NOTE:
1. RoHS COMPLIANT
2. IQC INSPECTION DOCUMENT NO. QWI-014
3. UNSPECIFIED DIMENSION REFER TO CAD DRAWING FILE.

G	Ø8.5&Ø5.5*M4*H12.05	4
F	CONVEX	6
E	M3 EXTRUDED HOLE & TAPPING	57
D	M2.5 EXTRUDED HOLE & TAPPING	1
C	Ø5.2*M3*H10.05	4
B	Ø5.2*M3*6	2
A	Ø5.2*M2*H6.05	4
TYPE	DIMENSION(mm)	Q'ty

RANGE OF DIMENSION	TOLERANCE CLASS DESIGNATION V f	V m	V c
UP TO 30	±0.10	±0.20	±0.50
ABOVE 30~120	±0.15	±0.30	±0.80
ABOVE 120~315	±0.20	±0.50	±1.20
ABOVE 315~1000	±0.30	±0.80	±2.00
ANGLE ±1° (±1.75/100)			

THIRD ANGLE PROJECTION

UNITS: mm | SCALE: 1/1 | SHEET: 1 OF 2 | MODEL NO.:

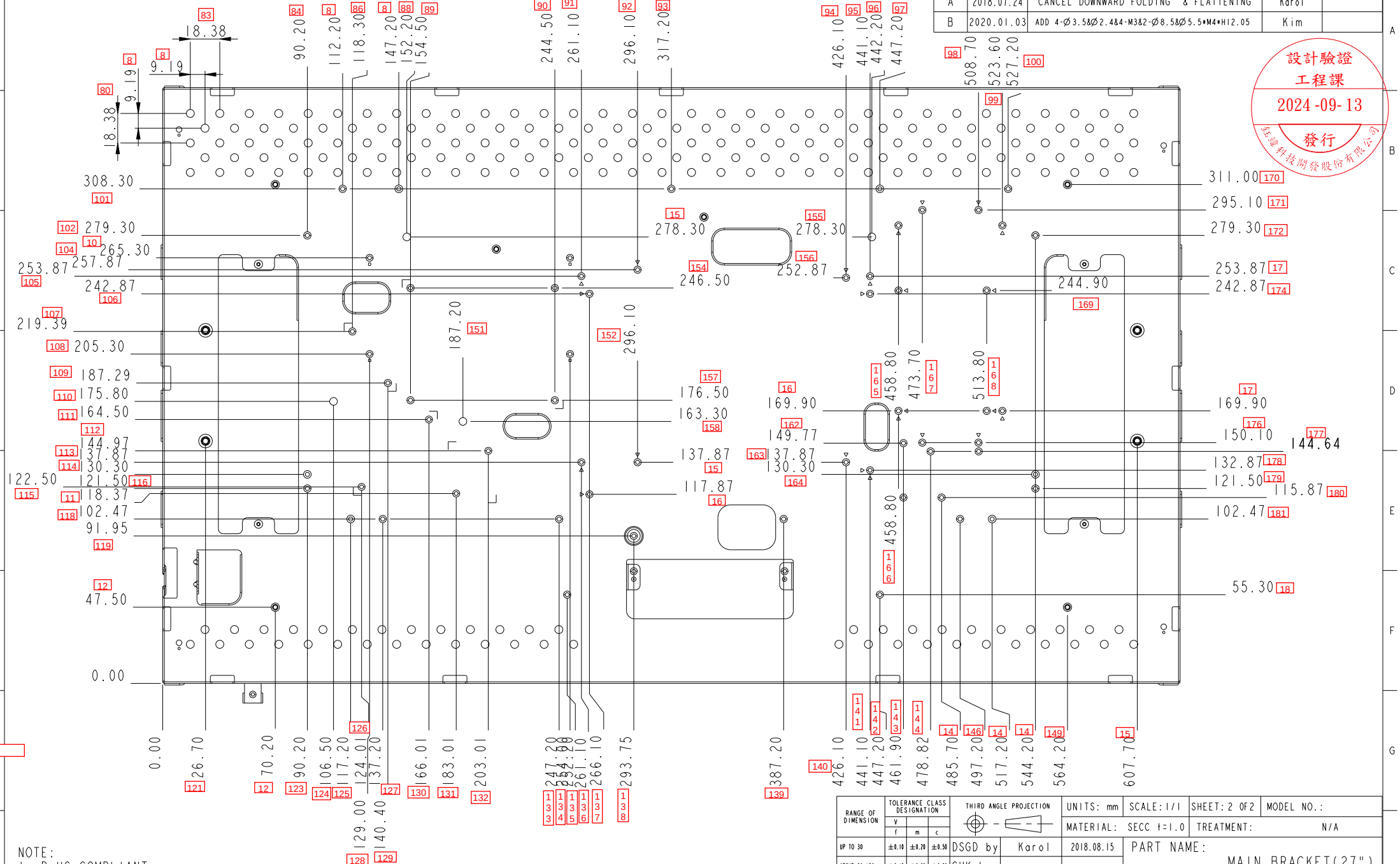
MATERIAL: SECC t=1.0 | TREATMENT: N/A

DSGD by	Karol	2018.08.15
CHK by		
APVD by		2024.19.13
APVD NO.:	(M2928)	
3D FILE NAME:	3MD364ME020-BKT_MAIN	

PART NAME: MAIN BRACKET (27")

PART NO.: 3MD364ME02B | REV. 0

DMA Laboratories ,Ltd.



REV.	DATE	DESCRIPTION	BY	APVD
A	2018.07.24	CANCEL DOWNWARD FOLDING & FLATTENING	Karol	
B	2020.01.03	ADD 4-Ø3.5&Ø2.4&4-M3&2-Ø8.5&Ø5.5*M4*H12.05	Kim	

設計驗證
工程課
2024-09-13
發行
鈺緯科技開發股份有限公司

NOTE:
1. RoHS COMPLIANT
2. IQC INSPECTION DOCUMENT NO. QWI-014\
3. UNSPECIFIED DIMENSION REFER TO CAD DRAWING FILE.

RANGE OF DIMENSION	TOLERANCE CLASS DESIGNATION f	m	c
UP TO 30	±0.10	±0.20	±0.50
ABOVE 30~120	±0.15	±0.30	±0.80
ABOVE 120~315	±0.20	±0.50	±1.20
ABOVE 315~1000	±0.30	±0.80	±2.00
ANGLE ±1° (±1.75/100)			

THIRD ANGLE PROJECTION

UNITS: mm | SCALE: 1/1 | SHEET: 2 OF 2 | MODEL NO.:

MATERIAL: SECC t=1.0 | TREATMENT: N/A

DSGD by Karol 2018.08.15

CHK by

APVD by

APVD NO.: (M2928)

3D FILE NAME: 3MD364ME020-BKT_MAIN_FRAME

PART NAME: MAIN BRACKET(27")

PART NO.: 3MD364ME02B | REV. 0

DMA Laboratories ,Ltd.

Test Result	

DIVA FAI DATA SHEET

Part Number : 3MD364ME02B (M2928)	Supplier : 雄業	Date: 2024/9/12	
Part Description : MAIN BRACKET(27")		Cavity / Tool # :	
Revision : 0	Material Spec: SECC T=1.0mm	Inspector: 李宥廷	

MOI-Method of inspection abbreviation: HG = Height gauge, MIC = Micrometer, DC = Dial Caliper, P = Protractor, OC = Optical Comparator, CG = Checking Gauge, CMM = Coordinate Measuring Machine, OMM = Optical Coordinate Measuring Machine, HT = Hardness Trester, TG = Thickness Gauge, VIS = D

OTHER:

DRAWING SPECIFICATIONS						INSPECTION RESULTS							INSPECTION ANALYSIS					
						Sample Number							% Tolerance		Alert/Rej		Supplier	RD Engineering
ITEM	LOCATION	NOMINAL	+TOL	-TOL	Method	1	2	3	1	2	3	Mean	UPPER	LOWER	HIGH	LOW	Remarks	Disposition
1		6.05	0.10	0.10		6.030	6.050	6.040	-0.020	0.000	-0.010	6.040	0%	20%				
2		10.05	0.10	0.10		10.050	10.030	10.050	0.000	-0.020	0.000	10.043	0%	20%				
3		6.00	0.10	0.10		6.010	5.980	5.990	0.010	-0.020	-0.010	5.993	10%	20%				
4		6.00	0.10	0.10		5.990	5.990	6.000	-0.010	-0.010	0.000	5.993	0%	10%				
5		9.05	0.10	0.10		9.030	9.050	9.040	-0.020	0.000	-0.010	9.040	0%	20%				
6		6.05	0.10	0.10		6.040	6.050	6.030	-0.010	0.000	-0.020	6.040	0%	20%				
7		10.05	0.10	0.10		10.030	10.040	10.040	-0.020	-0.010	-0.010	10.037	0%	20%				
8		15.00	0.10	0.10		14.950	14.970	14.980	-0.050	-0.030	-0.020	14.967	0%	50%				
9		15.00	0.10	0.10		15.050	15.030	15.040	0.050	0.030	0.040	15.040	50%	0%				
10		15.00	0.10	0.10		14.960	14.980	14.970	-0.040	-0.020	-0.030	14.970	0%	40%				
11		589.70	0.30	0.30		589.800	589.820	589.800	0.100	0.120	0.100	589.807	40%	0%				
12		449.70	0.30	0.30		449.670	449.700	449.680	-0.030	0.000	-0.020	449.683	0%	10%				
13		309.70	0.20	0.20		309.710	309.720	309.700	0.010	0.020	0.000	309.710	10%	0%				
14		15.00	0.10	0.10		14.960	14.980	14.970	-0.040	-0.020	-0.030	14.970	0%	40%				
15		169.70	0.20	0.20		169.650	169.670	169.660	-0.050	-0.030	-0.040	169.660	0%	25%				
16		15.00	0.10	0.10		14.970	14.980	14.980	-0.030	-0.020	-0.020	14.977	0%	30%				
17		29.70	0.10	0.10		29.610	29.630	29.620	-0.090	-0.070	-0.080	29.620	0%	90%		Alert		
18		9.20	0.10	0.10		9.230	9.200	9.210	0.030	0.000	0.010	9.213	30%	0%				
19		2.00	0.10	0.10		2.020	1.970	1.980	0.020	-0.030	-0.020	1.990	20%	30%				
20		16.15	0.10	0.10		16.130	16.170	16.160	-0.020	0.020	0.010	16.153	20%	20%				
21		14.65	0.10	0.10		14.660	14.630	14.650	0.010	-0.020	0.000	14.647	10%	20%				
22		13.35	0.10	0.10		13.330	13.360	13.340	-0.020	0.010	-0.010	13.343	10%	20%				
23		11.63	0.10	0.10		11.600	11.620	11.610	-0.030	-0.010	-0.020	11.610	0%	30%				
24		70.20	0.15	0.15		70.160	70.160	70.180	-0.040	-0.040	-0.020	70.167	0%	27%				
25		208.00	0.20	0.20		207.980	208.000	207.990	-0.020	0.000	-0.010	207.990	0%	10%				
26		337.50	0.30	0.30		337.460	337.500	337.480	-0.040	0.000	-0.020	337.480	0%	13%				
27		564.20	0.30	0.30		564.190	564.230	564.200	-0.010	0.030	0.000	564.207	10%	3%				
28		634.40	0.30	0.30		634.410	634.440	634.400	0.010	0.040	0.000	634.417	13%	0%				
29		1.00	0.10	0.10		1.050	1.030	1.040	0.050	0.030	0.040	1.040	50%	0%				
30		9.20	0.10	0.10		9.160	9.200	9.180	-0.040	0.000	-0.020	9.180	0%	40%				
31		35.10	0.15	0.15		35.240	35.200	35.220	0.140	0.100	0.120	35.220	93%	0%	Alert			
32		2.00	0.10	0.10		2.020	1.980	2.000	0.020	-0.020	0.000	2.000	20%	20%				
33		15.00	0.10	0.10		15.020	15.000	15.030	0.020	0.000	0.030	15.017	30%	0%				
34		322.80	0.30	0.30		323.030	323.000	323.010	0.230	0.200	0.210	323.013	77%	0%	Alert			
35		15.00	0.10	0.10		14.970	15.010	14.980	-0.030	0.010	-0.020	14.987	10%	30%				
36		182.80	0.20	0.20		182.990	182.970	182.980	0.190	0.170	0.180	182.980	95%	0%	Alert			
37		47.80	0.15	0.15		47.930	47.920	47.900	0.130	0.120	0.100	47.917	87%	0%	Alert			
38		34.30	0.15	0.15		34.350	34.300	34.330	0.050	0.000	0.030	34.327	33%	0%				
39		32.80	0.15	0.15		32.950	32.910	32.940	0.150	0.110	0.140	32.933	100%	0%	Alert			
40		2.00	0.10	0.10		2.030	1.970	2.010	0.030	-0.030	0.010	2.003	30%	30%				
41		9.20	0.10	0.10		9.300	9.300	9.280	0.100	0.100	0.080	9.293	100%	0%	Alert			
42		3.50	0.10	0.10		3.500	3.520	3.500	0.000	0.020	0.000	3.507	20%	0%				
		3.50	0.10	0.10		3.490	3.500	3.500	-0.010	0.000	0.000	3.497	0%	10%				

		3.50	0.10	0.10		3.500	3.480	3.510	0.000	-0.020	0.010	3.497	10%	20%				
		3.50	0.10	0.10		3.500	3.500	3.490	0.000	0.000	-0.010	3.497	0%	10%				
43		25.10	0.10	0.10		25.040	25.010	25.030	-0.060	-0.090	-0.070	25.027	0%	90%		Alert		
44		242.00	0.20	0.20		242.050	241.970	242.000	0.050	-0.030	0.000	242.007	25%	15%				
45		2.00	0.10	0.10		1.990	2.010	2.000	-0.010	0.010	0.000	2.000	10%	10%				
46		9.20	0.10	0.10		9.200	9.180	9.200	0.000	-0.020	0.000	9.193	0%	20%				
47		24.30	0.10	0.10		24.400	24.380	24.400	0.100	0.080	0.100	24.393	100%	0%	Alert			
48		64.30	0.15	0.15		64.320	64.270	64.300	0.020	-0.030	0.000	64.297	13%	20%				
49		270.70	0.20	0.20		270.850	270.800	270.830	0.150	0.100	0.130	270.827	75%	0%	Alert			
50		20.00	0.10	0.10		19.980	20.010	20.000	-0.020	0.010	0.000	19.997	10%	20%				
51		15.65	0.10	0.10		15.670	15.630	15.640	0.020	-0.020	-0.010	15.647	20%	20%				
52		190.00	0.20	0.20		190.020	190.060	190.040	0.020	0.060	0.040	190.040	30%	0%				
53		12.45	0.10	0.10		12.400	12.380	12.420	-0.050	-0.070	-0.030	12.400	0%	70%		Alert		
54		69.00	0.15	0.15		68.960	69.030	68.980	-0.040	0.030	-0.020	68.990	20%	27%				
55		90.30	0.15	0.15		90.270	90.330	90.300	-0.030	0.030	0.000	90.300	20%	20%				
56		99.30	0.15	0.15		99.450	99.400	99.430	0.150	0.100	0.130	99.427	100%	0%	Alert			
57		2.40	0.05	0.00		2.430	2.400	2.450	0.030	0.000	0.050	2.427	100%		Alert			
58		6.87	0.10	0.10		6.770	6.800	6.780	-0.100	-0.070	-0.090	6.783	0%	100%		Alert		
59		56.20	0.15	0.15		56.160	56.200	56.180	-0.040	0.000	-0.020	56.180	0%	27%				
60		12.22	0.10	0.10		12.120	12.140	12.120	-0.100	-0.080	-0.100	12.127	0%	100%		Alert		
61		293.75	0.20	0.20		293.760	293.800	293.780	0.010	0.050	0.030	293.780	25%	0%				
62		69.95	0.15	0.15		70.060	70.000	70.040	0.110	0.050	0.090	70.033	73%	0%	Alert			
63		64.95	0.15	0.15		65.010	65.000	65.030	0.060	0.050	0.080	65.013	53%	0%				
64		94.00	0.15	0.15		94.060	94.000	94.050	0.060	0.000	0.050	94.037	40%	0%				
65		3.60	0.10	0.10		3.580	3.610	3.590	-0.020	0.010	-0.010	3.593	10%	20%				
66		2.50	0.10	0.10		2.480	2.520	2.500	-0.020	0.020	0.000	2.500	20%	20%				
67		2.79	0.10	0.10		2.800	2.780	2.800	0.010	-0.010	0.010	2.793	10%	10%				
68		2.79	0.10	0.10		2.780	2.800	2.770	-0.010	0.010	-0.020	2.783	10%	20%				
69		5.50	0.10	0.10		5.480	5.500	5.490	-0.020	0.000	-0.010	5.490	0%	20%				
		5.50	0.10	0.10		5.520	5.510	5.500	0.020	0.010	0.000	5.510	20%	0%				
		5.50	0.10	0.10		5.470	5.480	5.500	-0.030	-0.020	0.000	5.483	0%	30%				
		5.50	0.10	0.10		5.480	5.500	5.490	-0.020	0.000	-0.010	5.490	0%	20%				
70		47.50	0.15	0.15		47.550	47.500	47.530	0.050	0.000	0.030	47.527	33%	0%				
71		162.00	0.20	0.20		161.900	161.930	161.950	-0.100	-0.070	-0.050	161.927	0%	50%				
72		263.50	0.20	0.20		263.540	263.500	263.520	0.040	0.000	0.020	263.520	20%	0%				
73		371.40	0.30	0.30		371.530	371.500	371.520	0.130	0.100	0.120	371.517	43%	0%				
74		5.50	0.10	0.10		5.490	5.510	5.500	-0.010	0.010	0.000	5.500	10%	10%				
75		8.50	0.10	0.10		8.500	8.490	8.490	0.000	-0.010	-0.010	8.493	0%	10%				
76		1.00	0.10	0.10		1.000	0.980	0.990	0.000	-0.020	-0.010	0.990	0%	20%				
77		4.65	0.10	0.10		4.640	4.630	4.640	-0.010	-0.020	-0.010	4.637	0%	20%				
78		7.00	0.10	0.10		6.990	7.000	6.980	-0.010	0.000	-0.020	6.990	0%	20%				
79		12.05	0.10	0.10		12.040	12.030	12.050	-0.010	-0.020	0.000	12.040	0%	20%				
80		18.38	0.10	0.10		18.390	18.400	18.380	0.010	0.020	0.000	18.390	20%	0%				
81		9.19	0.10	0.10		9.160	9.180	9.170	-0.030	-0.010	-0.020	9.170	0%	30%				
82		9.19	0.10	0.10		9.180	9.200	9.180	-0.010	0.010	-0.010	9.187	10%	10%				
83		18.38	0.10	0.10		18.360	18.400	18.380	-0.020	0.020	0.000	18.380	20%	20%				
84		90.20	0.15	0.15		90.050	90.070	90.060	-0.150	-0.130	-0.140	90.060	0%	100%		Alert		
85		112.20	0.15	0.15		112.090	112.100	112.130	-0.110	-0.100	-0.070	112.107	0%	73%		Alert		
86		118.30	0.15	0.15		118.220	118.240	118.220	-0.080	-0.060	-0.080	118.227	0%	53%				
87		147.20	0.20	0.20		147.230	147.200	147.210	0.030	0.000	0.010	147.213	15%	0%				
88		152.20	0.20	0.20		152.150	152.160	152.140	-0.050	-0.040	-0.060	152.150	0%	30%				
89		154.50	0.20	0.20		154.390	154.430	154.400	-0.110	-0.070	-0.100	154.407	0%	55%				
90		244.50	0.20	0.20		244.480	244.500	244.490	-0.020	0.000	-0.010	244.490	0%	10%				
91		261.10	0.20	0.20		261.080	261.100	261.090	-0.020	0.000	-0.010	261.090	0%	10%				

92		296.10	0.20	0.20		296.150	296.100	296.140	0.050	0.000	0.040	296.130	25%	0%				
93		317.20	0.30	0.30		317.190	317.230	317.200	-0.010	0.030	0.000	317.207	10%	3%				
94		426.10	0.30	0.30		426.120	426.130	426.100	0.020	0.030	0.000	426.117	10%	0%				
95		441.10	0.30	0.30		441.120	441.150	441.100	0.020	0.050	0.000	441.123	17%	0%				
96		442.20	0.30	0.30		442.190	442.230	442.200	-0.010	0.030	0.000	442.207	10%	3%				
97		447.20	0.30	0.30		447.260	447.300	447.280	0.060	0.100	0.080	447.280	33%	0%				
98		508.70	0.30	0.30		508.690	508.730	508.670	-0.010	0.030	-0.030	508.697	10%	10%				
99		523.60	0.30	0.30		523.630	523.650	523.600	0.030	0.050	0.000	523.627	17%	0%				
100		527.20	0.30	0.30		527.170	527.200	527.180	-0.030	0.000	-0.020	527.183	0%	10%				
101		308.30	0.20	0.20		308.350	308.300	308.320	0.050	0.000	0.020	308.323	25%	0%				
102		279.30	0.20	0.20		279.410	279.400	279.430	0.110	0.100	0.130	279.413	65%	0%				
103		265.30	0.20	0.20		265.440	265.400	265.420	0.140	0.100	0.120	265.420	70%	0%	Alert			
104		257.87	0.20	0.20		258.040	258.000	258.020	0.170	0.130	0.150	258.020	85%	0%	Alert			
105		253.87	0.20	0.20		253.980	254.000	253.970	0.110	0.130	0.100	253.983	65%	0%				
106		242.87	0.20	0.20		243.000	243.020	243.000	0.130	0.150	0.130	243.007	75%	0%	Alert			
107		219.39	0.20	0.20		219.510	219.480	219.500	0.120	0.090	0.110	219.497	60%	0%				
108		205.30	0.20	0.20		205.410	205.400	205.430	0.110	0.100	0.130	205.413	65%	0%				
109		187.29	0.20	0.20		187.430	187.400	187.420	0.140	0.110	0.130	187.417	70%	0%	Alert			
110		175.80	0.20	0.20		175.930	175.900	175.920	0.130	0.100	0.120	175.917	65%	0%				
111		164.50	0.20	0.20		164.580	164.600	164.570	0.080	0.100	0.070	164.583	50%	0%				
112		144.97	0.20	0.20		145.080	145.100	145.070	0.110	0.130	0.100	145.083	65%	0%				
113		137.87	0.20	0.20		137.960	138.000	137.980	0.090	0.130	0.110	137.980	65%	0%				
114		130.30	0.20	0.20		130.310	130.300	130.320	0.010	0.000	0.020	130.310	10%	0%				
115		122.50	0.20	0.20		122.600	122.620	122.610	0.100	0.120	0.110	122.610	60%	0%				
116		121.50	0.20	0.20		121.630	121.600	121.620	0.130	0.100	0.120	121.617	65%	0%				
117		118.37	0.15	0.15		118.500	118.470	118.480	0.130	0.100	0.110	118.483	87%	0%	Alert			
118		102.47	0.15	0.15		102.590	102.570	102.580	0.120	0.100	0.110	102.580	80%	0%	Alert			
119		91.95	0.15	0.15		91.980	92.000	91.970	0.030	0.050	0.020	91.983	33%	0%				
120		47.50	0.15	0.15		47.550	47.500	47.530	0.050	0.000	0.030	47.527	33%	0%				
121		26.70	0.10	0.10		26.720	26.700	26.730	0.020	0.000	0.030	26.717	30%	0%				
122		70.20	0.15	0.15		70.180	70.200	70.190	-0.020	0.000	-0.010	70.190	0%	13%				
123		90.20	0.15	0.15		90.170	90.200	90.180	-0.030	0.000	-0.020	90.183	0%	20%				
124		106.50	0.15	0.15		106.430	106.450	106.430	-0.070	-0.050	-0.070	106.437	0%	47%				
125		117.20	0.15	0.15		117.180	117.200	117.190	-0.020	0.000	-0.010	117.190	0%	13%				
126		124.01	0.20	0.20		123.930	123.900	123.940	-0.080	-0.110	-0.070	123.923	0%	55%				
127		137.20	0.20	0.20		137.220	137.200	137.240	0.020	0.000	0.040	137.220	20%	0%				
128		129.00	0.20	0.20		128.950	128.940	128.900	-0.050	-0.060	-0.100	128.930	0%	50%				
129		140.40	0.20	0.20		140.320	140.300	140.340	-0.080	-0.100	-0.060	140.320	0%	50%				
130		166.01	0.20	0.20		165.960	166.000	165.980	-0.050	-0.010	-0.030	165.980	0%	25%				
131		183.01	0.20	0.20		182.990	183.000	182.970	-0.020	-0.010	-0.040	182.987	0%	20%				
132		203.01	0.20	0.20		202.950	202.980	203.000	-0.060	-0.030	-0.010	202.977	0%	30%				
133		247.20	0.20	0.20		247.190	247.230	247.200	-0.010	0.030	0.000	247.207	15%	5%				
134		254.00	0.20	0.20		253.960	254.000	253.980	-0.040	0.000	-0.020	253.980	0%	20%				
135		252.20	0.20	0.20		252.220	252.200	252.230	0.020	0.000	0.030	252.217	15%	0%				
136		261.10	0.20	0.20		261.110	261.140	261.120	0.010	0.040	0.020	261.123	20%	0%				
137		266.10	0.20	0.20		266.130	266.150	266.100	0.030	0.050	0.000	266.127	25%	0%				
138		293.75	0.20	0.20		293.780	293.800	293.790	0.030	0.050	0.040	293.790	25%	0%				
139		387.20	0.30	0.30		387.240	387.260	387.250	0.040	0.060	0.050	387.250	20%	0%				
140		426.10	0.30	0.30		426.140	426.160	426.140	0.040	0.060	0.040	426.147	20%	0%				
141		441.10	0.30	0.30		441.140	441.160	441.120	0.040	0.060	0.020	441.140	20%	0%				
142		447.20	0.30	0.30		447.270	447.300	447.280	0.070	0.100	0.080	447.283	33%	0%				
143		461.90	0.30	0.30		461.940	461.920	461.900	0.040	0.020	0.000	461.920	13%	0%				
144		478.82	0.30	0.30		478.900	478.930	478.880	0.080	0.110	0.060	478.903	37%	0%				
145		485.70	0.30	0.30		485.770	485.800	485.780	0.070	0.100	0.080	485.783	33%	0%				
146		497.20	0.30	0.30		497.290	497.300	497.280	0.090	0.100	0.080	497.290	33%	0%				
147		517.20	0.30	0.30		517.270	517.300	517.280	0.070	0.100	0.080	517.283	33%	0%				

148		544.20	0.30	0.30		544.210	544.180	544.200	0.010	-0.020	0.000	544.197	3%	7%				
149		564.20	0.30	0.30		564.230	564.200	564.240	0.030	0.000	0.040	564.223	13%	0%				
150		607.70	0.30	0.30		607.660	607.700	607.680	-0.040	0.000	-0.020	607.680	0%	13%				
151		187.20	0.20	0.20		187.150	187.200	187.180	-0.050	0.000	-0.020	187.177	0%	25%				
152		296.10	0.20	0.20		296.110	296.130	296.100	0.010	0.030	0.000	296.113	15%	0%				
153		278.30	0.20	0.20		278.490	278.500	278.480	0.190	0.200	0.180	278.490	100%	0%	Alert			
154		246.50	0.20	0.20		246.600	246.630	246.600	0.100	0.130	0.100	246.610	65%	0%				
155		278.30	0.20	0.20		278.440	278.400	278.420	0.140	0.100	0.120	278.420	70%	0%	Alert			
156		252.87	0.20	0.20		253.010	253.000	253.040	0.140	0.130	0.170	253.017	85%	0%	Alert			
157		176.50	0.20	0.20		176.630	176.600	176.620	0.130	0.100	0.120	176.617	65%	0%				
158		163.30	0.20	0.20		163.460	163.500	163.480	0.160	0.200	0.180	163.480	100%	0%	Alert			
159		137.87	0.20	0.20		137.940	137.900	137.920	0.070	0.030	0.050	137.920	35%	0%				
160		117.87	0.15	0.15		117.980	118.000	117.970	0.110	0.130	0.100	117.983	87%	0%	Alert			
161		169.90	0.20	0.20		170.040	170.000	170.020	0.140	0.100	0.120	170.020	70%	0%	Alert			
162		149.77	0.20	0.20		149.850	149.800	149.830	0.080	0.030	0.060	149.827	40%	0%				
163		137.87	0.20	0.20		137.940	137.900	137.920	0.070	0.030	0.050	137.920	35%	0%				
164		130.30	0.20	0.20		130.310	130.300	130.320	0.010	0.000	0.020	130.310	10%	0%				
165		458.80	0.30	0.30		458.840	458.800	458.820	0.040	0.000	0.020	458.820	13%	0%				
166		458.80	0.30	0.30		458.860	458.800	458.840	0.060	0.000	0.040	458.833	20%	0%				
167		473.70	0.30	0.30		473.730	473.700	473.750	0.030	0.000	0.050	473.727	17%	0%				
168		513.80	0.30	0.30		513.850	513.820	513.800	0.050	0.020	0.000	513.823	17%	0%				
169		244.90	0.20	0.20		245.030	245.100	245.070	0.130	0.200	0.170	245.067	100%	0%	Alert			
170		311.00	0.20	0.20		311.100	311.130	311.100	0.100	0.130	0.100	311.110	65%	0%				
171		295.10	0.20	0.20		295.220	295.200	295.300	0.120	0.100	0.200	295.240	100%	0%	Alert			
172		279.30	0.20	0.20		279.430	279.400	279.420	0.130	0.100	0.120	279.417	65%	0%				
173		253.87	0.20	0.20		254.060	254.000	254.040	0.190	0.130	0.170	254.033	95%	0%	Alert			
174		242.87	0.20	0.20		242.980	242.960	242.970	0.110	0.090	0.100	242.970	55%	0%				
175		169.90	0.20	0.20		170.040	170.000	170.020	0.140	0.100	0.120	170.020	70%	0%	Alert			
176		150.10	0.20	0.20		150.240	150.200	150.220	0.140	0.100	0.120	150.220	70%	0%	Alert			
177		144.64	0.20	0.20		144.720	144.700	144.700	0.080	0.060	0.060	144.707	40%	0%				
178		132.87	0.20	0.20		132.940	132.900	132.920	0.070	0.030	0.050	132.920	35%	0%				
179		121.50	0.20	0.20		121.670	121.700	121.680	0.170	0.200	0.180	121.683	100%	0%	Alert			
180		115.87	0.15	0.15		115.960	115.900	115.940	0.090	0.030	0.070	115.933	60%	0%				
181		102.47	0.15	0.15		102.480	102.500	102.490	0.010	0.030	0.020	102.490	20%	0%				
182		55.30	0.15	0.15		55.410	55.400	55.420	0.110	0.100	0.120	55.410	80%	0%	Alert			

Instructions:
1.Inspector mest fillout the yellow area.
2. The table will automatically calculate the data in green area.

測試報告
Test Report

號碼(No.): EKR24701541　　日期(Date): 15-Aug-2024　　頁數(Page) : 1 of 8

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)	:	中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
樣品名稱(Sample Name)	:	電鍍鋅產品(ELECTRO-GALVANIZED PRODUCTS)
樣品型號(Style/Item No.)	:	無鉻耐指紋電鍍鋅鋼捲(ELECTRO-GALVANIZED COILS (COATING AFP))

==========

收件日(Sample Receiving Date)	:	23-Jul-2024
測試期間(Testing Period)	:	23-Jul-2024 to 15-Aug-2024

測試需求(Test Requested) :　依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

測試結果(Test Results) :　請參閱下一頁 (Please refer to following pages.)

結　論(Conclusion) :　根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。 (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)

報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D./ Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
化學實驗室-高雄/Chemical Laboratory-Kaohsiung

PIN CODE: 91D17E42

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

測試部位敘述 (Test Part Description)

No.1 : 灰色金屬 (GRAY METAL)

測試結果 (Test Results)

(Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
鎘 (Cd) (Cadmium (Cd))	依據IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))		mg/kg	2	n.d.	1000
汞 (Hg) (Mercury (Hg))	依據IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	依據IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(According to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	-
一溴聯苯 (Monobromobiphenyl)	自訂方法(文件編號 : TESP-KE-082)參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(In house method (Doc. No. : TESP-KE-082) refer to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.	-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.	-
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.	1000

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
一溴聯苯醚 (Monobromodiphenyl ether)	自訂方法(文件編號 : TESP-KE-082)參考 IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(In house method (Doc. No. : TESP-KE-082) refer to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))	依據IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(According to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))		mg/kg	50	n.d.	1000

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出) ; 小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)
6. 除非另有說明，參照ILAC-G8:09/2019決定規則，採用簡單允收規則之二分法(w=0)進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)
7. 申請人提交的產品是用於電機電子設備之原物料。(The product from the applicant submitted is a raw material which is used for electric and electronic equipment.)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

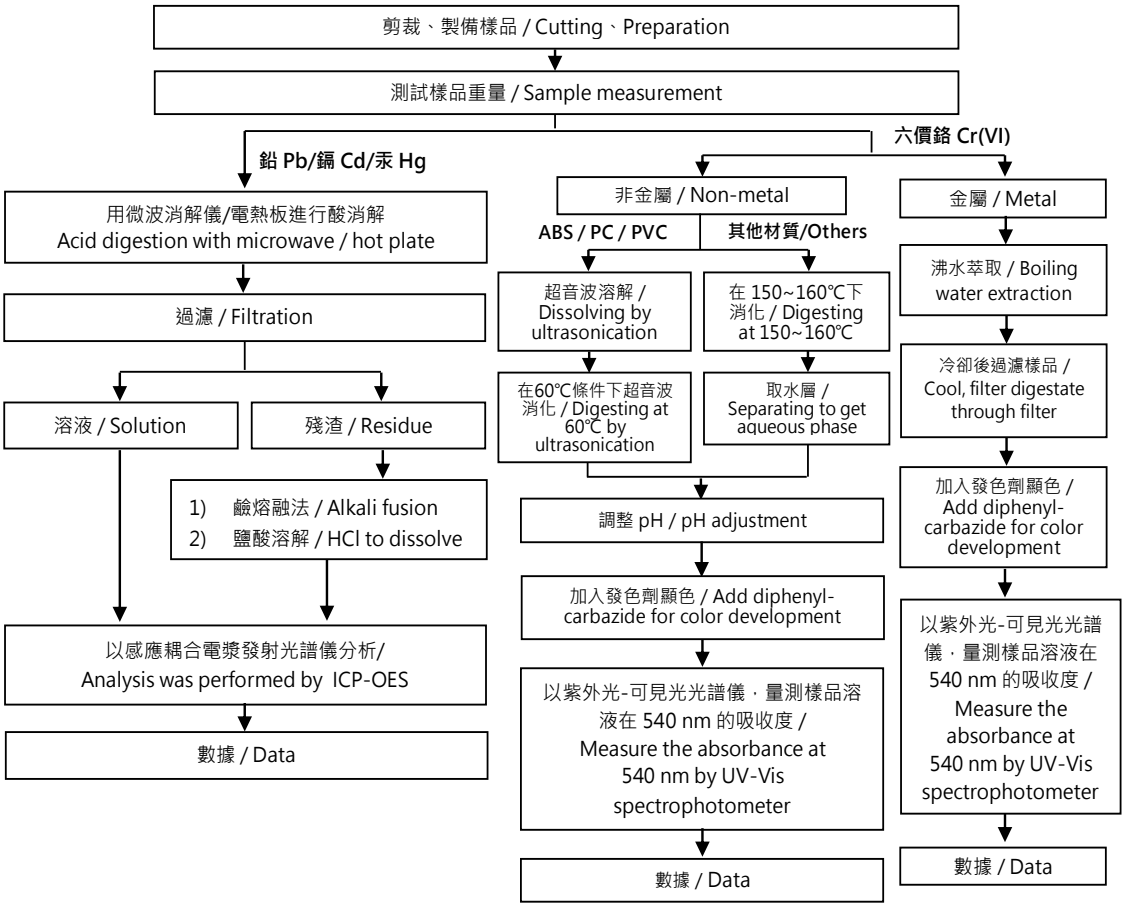
中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

重金屬流程圖 / Analytical flow chart of heavy metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）

These samples were dissolved totally by pre-conditioning method according to below flow chart.

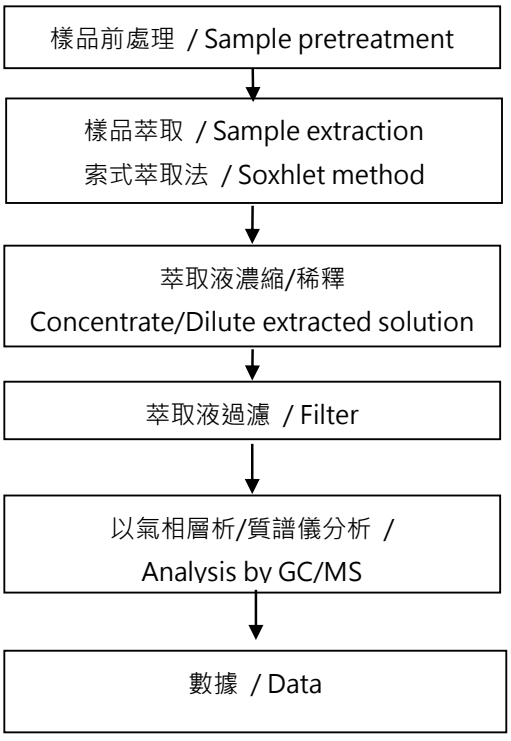
（Cr^{6+} test method excluded）



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

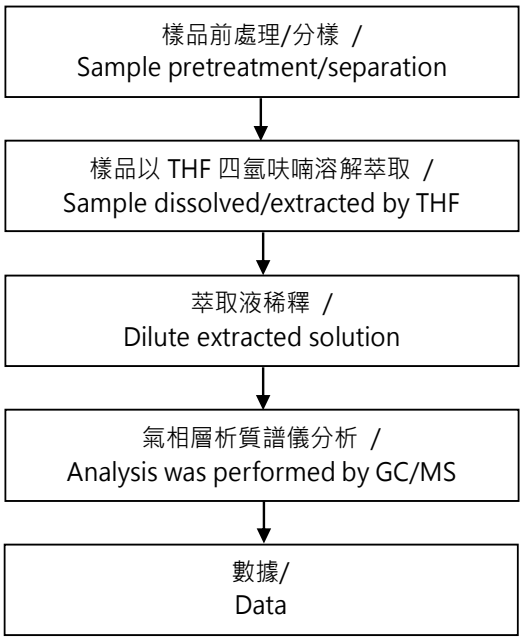


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

可塑劑分析流程圖 / Analytical flow chart - Phthalate

【測試方法/Test method: IEC 62321-8】

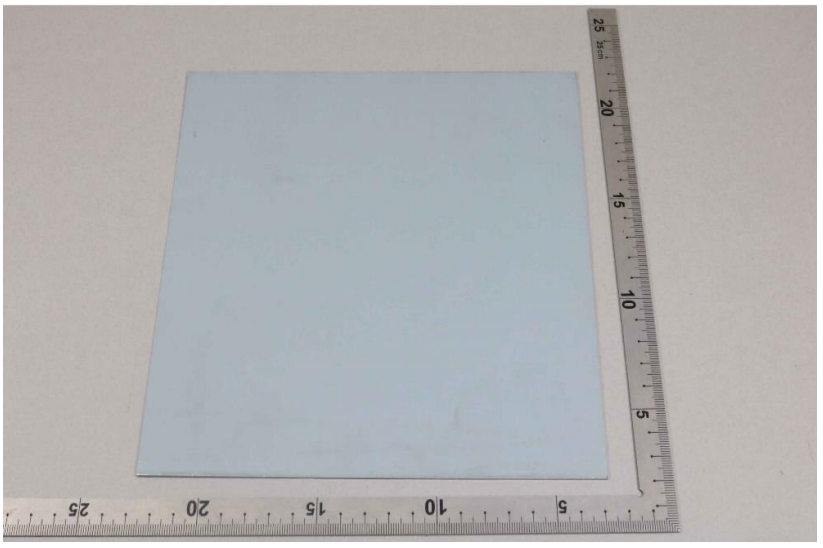


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1, CHUNG KANG RD., HSIAO KANG, KAOHSIUNG 81233, TAIWAN, REPUBLIC OF CHINA)

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

EKR24701541



** 報告結尾 (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 https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

CHINA STEEL
中鋼公司

安全資料表(SDS)

一、物品與廠商資料

物品名稱：電鍍鋅鋼片(Electrogalvanized Sheet Coils & Sheets、簡稱 EG)	
物品編號：	
製造商或供應商名稱、地址及電話：中國鋼鐵股份有限公司 812 高雄市小港區中鋼路 1 號	
緊急聯絡電話：(07)802-1111	傳真電話：(07)8051292

二、危害辨識資料

重要物理性及 化學性危害與效應	1.與強酸接觸會起反應產生可燃性氫氣。 2.銲接或加熱會產生氧化鐵燻煙。

三、成分辨識資料

純物質：

物品中（英）文名稱：鋼(STEEL)			
同義名稱：			
化學文摘社登記號碼(CAS.NO.)：			
鐵 Iron	7439-89-6	鋅 Zinc	7440-66-6
碳 Carbon	7440-44-0	矽 Silicon	7440-21-3
錳 Manganese	7439-96-5		
危害物質成分(成分百分比)：鐵>96%			

危害物質成分之中（英）文名稱	濃度或濃度範圍(成分百分比)	危害物質分類及圖式
鐵(Fe)	>96%	
碳(C)	<0.20%	
錳(Mn)	<0.65%	
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分		
鋅(Zinc)	<30g/m^2	
聚氨基甲酸乙脂(Polyurethane)	<900mg/m^2	
矽(Silicon)	80~120mg/m^2	

四、急救措施

不同暴露途徑之急救方法：

- 吸入：本產品形態食入之可能性相當低。
- 眼睛接觸：立即將眼皮撐開，用大量水沖洗 15 分鐘。本產品形態進入眼睛之可能性相當低。
- 皮膚接觸：立即用肥皂和水清洗，本產品形態造成刺激皮膚之可能性相當低。

五、滅火措施

適用滅火劑：使用適合週遭火災之滅火器。	
滅火時可能遭遇之特殊危害：	1.此物若以大塊型式存在時，不可燃。 2.若以微細粉末存在時，遇火源有引起爆炸的危險。 3.本產品若熔化或燃燒，則會產生毒性或刺激性蒸汽，請使用個人呼吸防護器具。

六、洩漏處理方法

本產品為固體狀不適用。

七、安全處置與儲存方法

一般使用：本產品邊緣為尖銳薄片或捲片，進行各項作業必須使用個人防護器具，所有員工必須接受訓練以安全地進行各項作業。

儲存建議：建議儲存於可防止實體破壞、濕氣、直接日曬之場所。

八、暴露預防措施

重要成分	化學文摘社登記號碼 CAS NO.	重量比例 (%)	暴露限制	
			OSHA PEL	ACGIH TLV
鐵 Iron	7439-89-6	96	未建立	未建立
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分				
鋅(Zinc)	7440-66-6	<30g/m^2	未建立	未建立
聚氨基甲酸乙脂 (Polyurethanes)	--	<900mg/m^2	未建立	未建立
矽(Silicon)	7440-21-3	80~120mg/m^2	未建立	未建立

工程控制：

1. 在進行燃燒、銅鑄、切割、研磨、打光、銲接或其他機械加工時，應使用機械通風裝置。
2. 若在進行機械加工時，有產生粉塵或微粒狀物質，建議採用局部及一般通風裝置以預防過多的危害物質暴露。

個人防護設備：

眼睛防護：在進行本產品作業時請穿戴化學安全護目鏡。

呼吸防護：如需符合暴露標準 在進行切割、研磨、打光或銲接等機械加工作業時，應使用自攜式呼吸防護具。

皮膚防護：1.使用皮革或防割傷手套以免被尖銳薄片或捲片割傷。
2.使用防滲透手套以免被皮膚接觸表面油污。

身體防護：1.連身式防護衣。
2.工作鞋。
3.工作區要有淋浴/沖眼設備。

衛生措施： 1.工作場所嚴禁飲用、抽煙或飲食。
2.處理此物後，須徹底洗手。

九、物理及化學性質

物質狀態：固體	形狀：薄片或捲片
顏色：金屬性灰色	氣味：無味
pH 值：不適用	閃火點：不適用
熔解溫度：基本鋼材－2750 ℉	熔解溫度：表面塗裝材－800 ℉
自燃溫度：不適用	爆炸界限：不適用
密度：7.5 - 8.0（水＝1）	溶解度：不溶於水
熔點/凝固點：不適用	揮發速率：不適用
易燃性(固態、氣態）：不適用	分配係數(正辛醇/水）：不適用

十、安定性及反應性

安定性：正常狀況下安定
應避免之狀況：濕氣及腐蝕性物質會氧化本物質
應避免之物質：酸類、A 類及 B 類爆炸物、強性氧化物、腐蝕劑
危害分解物：引燃或熔解可能會產生有產生毒性或刺激性蒸汽

十一、毒性資料

急毒性(Acute Effects)：
鐵(Iron) LD50(測試動物暴露途徑)：30 g/kg(大鼠，吞食)
過度暴露效應(Symptoms of Overexposure)：
鐵(Iron Oxide)：過度暴露或重覆暴露於高濃度狀況下，可能造成塵肺病 pneumoconiosis，吸入氧化鐵可能會刺激眼睛、鼻子及喉嚨。
矽(Silicon)：主要為厭惡性粉塵(Nuisance Dust)，可能會刺激眼睛及黏液薄膜(Mucous Membranes)，本產品型態無此危害。

十二、生態資料

現有資料無影響生態之考量

十三、廢棄處置方法

廢棄處置方法：
1.參考相關法規處理。
2.相關法規可能會限制金屬性廢棄物之處置。
3.建議採取回收金屬性廢棄物。

十四、運送資料

無特殊運送方法

十五、法規資料

適用法規：
職業安全衛生設施規則
危害性化學品標識及通識規則
勞工作業環境空氣中有害物容許濃度標準
事業廢棄物貯存清除處理方法及設施標準

十六、其他資料

參考文獻		
製表者單位	名稱：中國鋼鐵股份有限公司	
	地址/電話：812 高雄市小港區中鋼路 1 號，Tel：(07)8021111	
製 表 人	職稱：工 程 師	姓名（簽章）：曾文宏
製表日期	2024.01.05	
備 註	1. 本安全資料表僅供參考，中國鋼鐵股份有限公司對使用本資料不承擔任何法律責任或提供任何保證。 2. 本安全資料表之提供是基於對本產品的安全及健康危害相關資訊之最佳瞭解，以安全地進行本產品之各項作業及處理。 3. 每位進行本產品之各項作業及處理之人員應先閱讀本安全資料表，瞭解如何進行本產品之各項作業及處理；也應考量本產品與其他製造廠商產品可能之應用。	

測試報告
Test Report

號碼(No.): ETR24100459　　日期(Date): 09-Jan-2024　　

三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)　：　三利金屬有限公司 (SAN LI METAL CO., LTD.)
樣品名稱(Sample Name)　：　1215MS/Y08MnS

==========

收件日(Sample Receiving Date)　：　02-Jan-2024
測試期間(Testing Period)　：　02-Jan-2024 to 09-Jan-2024

測試需求(Test Requested)　：　依據客戶指定，參考RoHS指令2011/65/EU Annex II測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚。 (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample(s).)

測試結果(Test Results)　：　請參閱下一頁 (Please refer to following pages.)

結　論(Conclusion)　：　根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚的測試結果符合RoHS 2011/65/EU Annex II之限值要求。 (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II.)

Troy Chang / Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

CHECK REPORT
PIN CODE: 9C436611

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

測試部位敘述 (Test Part Description)

No.1 : 銀色金屬 (SILVER COLORED METAL)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
鎘 (Cd) (Cadmium (Cd))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))		mg/kg	2	n.d.	1000
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	參考IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	-
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.	-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.	-
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.	1000

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
一溴聯苯醚 (Monobromodiphenyl ether)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)
6. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

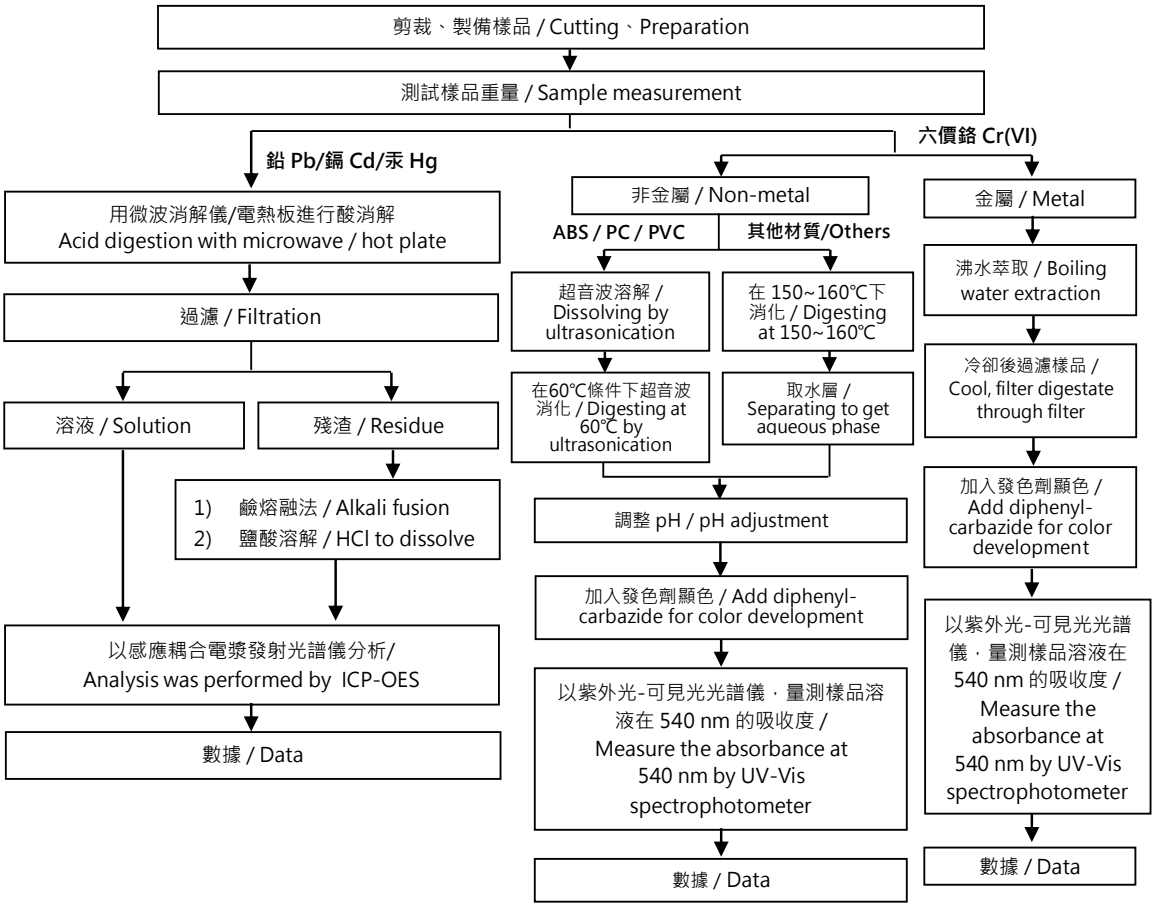
三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

重金屬流程圖 / Analytical flow chart of heavy metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）

These samples were dissolved totally by pre-conditioning method according to below flow chart.

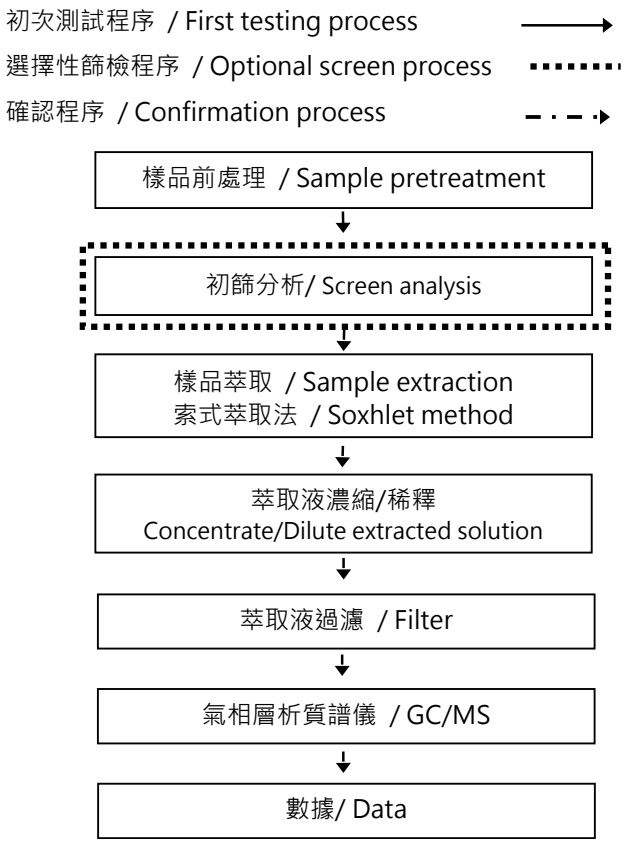
（Cr^{6+} test method excluded）



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

三利金屬有限公司 (SAN LI METAL CO., LTD.)
新北市三重區光復路二段141號 (NO. 141, SEC. 2, KUANG FU ROAD, SAN CHUNG DISTRICT, NEW TAIPEI CITY, TAIWAN)

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

ETR24100459



** 報告結尾 (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 https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

物 質 安 全 資 料 表

一、物品與廠商資料

物品名稱：碳鋼（CARBON-STEEL）	
物品編號：1215MS	
供應商名稱：三利金屬有限公司	地址：新北市三重區光復路二段 141 號
緊急聯絡電話：（02）2995-9192	傳真電話：（02）2995-8864

二、成分辨識資料

純物質：鐵

中英文名稱：碳鋼（CARBON STEEL）	
物質成分（成分百分比）：	
Fe（鐵）：	98.147
C（碳）：	0.1
Si（矽）：	0.03
Mn（錳）：	1.26
P（磷）：	0.067
S（硫）：	0.37
N（氮）：	0.01
Pb（鉛）：	0.01
Al（鋁）：	0.006

混合物

化學性質		
危害物質成分之中英文名稱	濃度或濃度範圍（PPM）	危害物質分類及圖式
六價鉻 Hexavalent Chromium Cr（VI）	N/A	雜質
鎘 Cadmium（Cd）	N/A	雜質
汞 Mercury（Hg）	N/A	雜質
鉛 Lead（Pb）	N/A	雜質

三、危害辨識資料

最重要危害效應	健康危害效應： 1、常溫下不易分解，鐵在固體下對人體不會有危害，離子狀態下不會污染環境，因地表岩石幾乎都含鐵。 2、碳鋼內的雜質在固體狀態不會分解，污染環境。
	環境影響：不可隨便丟棄，無法在自然條件下分解，易生鏽氧化污染環境。
	物理性及化學性危害：固體，可溶於強酸、強鹼後污染環境。
	特殊危害：目前沒有發現有特殊危害。
主要症狀：無。	
物品危害分類：目前沒有分類。	

四、急救措施

不同暴露途徑之急救方法：

- 吸入：常溫固態不會吸入。
- 皮膚接觸：無影響，小心鐵屑劃傷皮膚。
- 眼睛接觸：燃燒狀態下才會刺激眼睛，請立即就醫。
- 食入：立即就醫。

最重要症狀及危害效應：隨便丟棄會對環境排水系統、河流及海洋造成環境污染，請務必做好回收。

對急救人員之防護：燃燒狀態下，急救人員要穿著高溫防護服裝。

對醫師之提示：受傷立即包紮手術。

五、滅火措施

適用滅火劑：泡沫、CO2、化學乾粉、沙土、噴水。

滅火時可能遭遇之特殊危害：燙傷。

特殊滅火程序：消防人員應穿著防高溫服，選用滅火劑滅火。

消防人員之特殊防護設備：防護服。

六、洩漏處理方法

個人應注意事項：常溫下不易分解，在強酸或高溫下會分解。

環境注意事項：不可隨意丟棄，應通知環保人員處理。

清理方法：回收再處理。

七、安全處置與儲存方法

處置：

1、於常溫乾燥、通風的地方保存，可重複回收使用。

2、不可隨便丟棄，無法在自然環境中被生物分解。

3、容易氧化生鏽。

儲存：於常溫乾燥、通風的地方保存，防止氧化或受強酸、強鹼腐蝕。

八、暴露預防措施

工程控制：

控制參數：八小時日時量平均容許濃度／短時間時量平均容許濃度／最高容許濃度：固體不揮發。

個人防護設備：

- 呼吸防護：常溫下不用防護。
- 手部防護：常溫下不用防護，但工作時需佩戴手套避免受金屬割傷。
- 眼睛防護：常溫下不用防護。
- 皮膚及身體防護：常溫下不用防護，但足部需穿著安全鞋避免不慎受重物壓傷。

九、物理及化學性質

物質狀態：固體	形狀：可隨意成型
顏色：銀灰色	氣味：無味
分解溫度：1,538℃	
密度：7.89g/cm^3	

十、安定性及反應性

安定性：安定
特殊狀況下可能之危害反應：燃燒時可能會產生灼熱的光。
應避免之狀況：避免高溫焚化。
應避免之物質：強酸、強鹼。
危害分解物：在強酸溶解的狀態下，有害物質才會分解。

十一、毒性資料

急毒性：沒有證據顯示有毒。
局部效應：沒有證據顯示有毒。
致敏感性：沒有證據顯示有毒，不會對人體有敏感性。
慢毒性或長期毒性：沒有證據顯示有毒。

十二、生態資料

可能之環境影響／環境流佈： ● 隨便丟棄會對環境排水系統、河流及海洋造成環境污染，請務必做好回收。 ● 愈強酸、強鹼可發生氧化或分解。 ● 鉛離子對水中生物有毒。 ● 鉛離子生物蓄積性，以貝類為顯著。

十三、廢棄處置方法

廢棄處置方法：集中回收再利用

十四、運送資料

國際運送規定： 1、包裝運輸，不可暴露在空氣中，以防氧化。 2、不可和強酸、強鹼混放在一起。
特殊運送方法及注意事項：防止包裝破損。

十五、法規資料

適用法規：勞工安全衛生設施規則

十六、其它資料

參考文獻	CHEMINFO 資料庫，CCINFO 光碟，2000-3 RETCS 資料庫，TOMES PLUS 光碟，VOL.45，2000 HSDB 資料庫，TOMES PLUS 光碟，VOL.45，2000 Material Safety Date Sheets，Genium Publishing Corporation，1997
製表單位	名稱：三利金屬有限公司
	地址：新北市三重區光復路二段 141 號
製 表 人	劉建華
製表日期	2020.01.15

測試報告
Test Report

號碼(No.): ETR23C04909V01　　日期(Date): 03-Jan-2024　　

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)　：　柯一有限公司 (KO-ILAN' S CO., LTD.)
樣品名稱(Sample Name)　：　HYPRO TRI BLUE Zinc (三價鉻藍鋅鈍化劑)

==========

收件日(Sample Receiving Date)　：　26-Dec-2023
測試期間(Testing Period)　：　26-Dec-2023 to 03-Jan-2024

測試需求(Test Requested)　：　依據客戶指定，測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

測試結果(Test Results)　：　請參閱下一頁 (Please refer to following pages.)

Troy Chang / Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

PIN CODE: B4A88B16

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

測試部位敘述 (Test Part Description)

No.1 : 深綠色液體 (DK. GREEN LIQUID)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
鎘 (Cd) (Cadmium (Cd))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
鉛 (Pb) (Lead (Pb))	參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
六價鉻 Cr(VI) (Hexavalent Chromium Cr(VI)) (CAS No.: 18540-29-9)	參考US EPA 7196A: 1992，以紫外光-可見光分光光度計分析。(With reference to US EPA 7196A: 1992, analysis was performed by UV-VIS.)	mg/kg	2	n.d.
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
				No.1
一溴聯苯醚 (Monobromodiphenyl ether)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))		mg/kg	50	n.d.
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))		mg/kg	50	n.d.
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	n.d.

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. 本測試報告取代ETR23C04909，原測試報告作廢。(This test report supersedes the previous document bearing the report number ETR23C04909, the report ETR23C04909 was voided.)

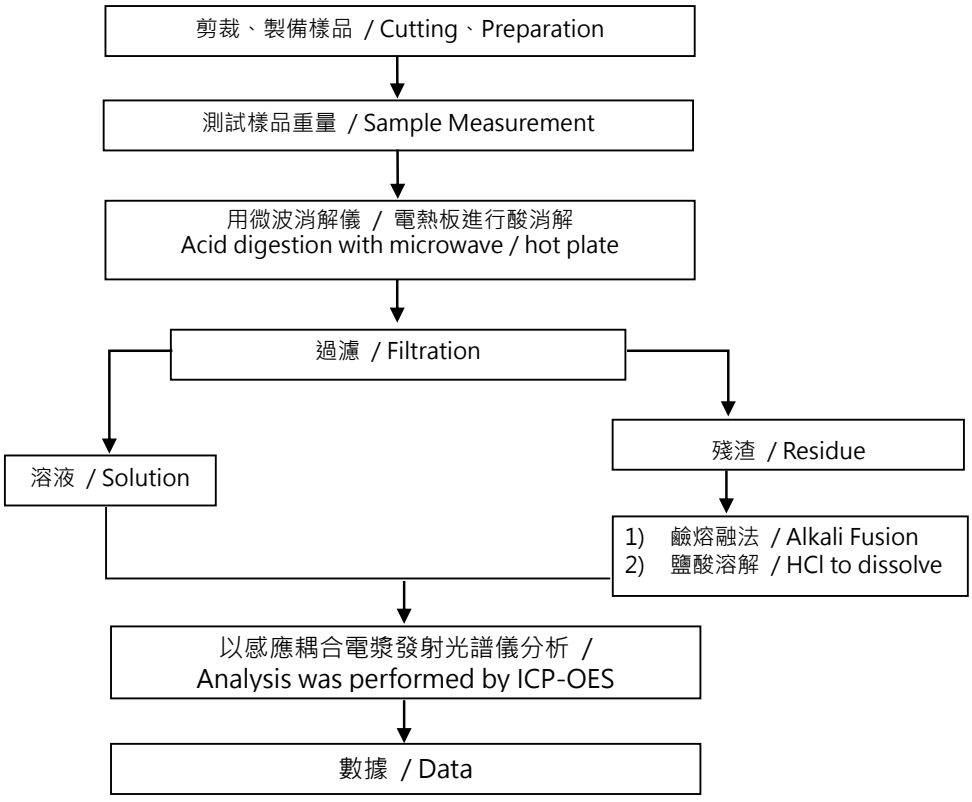
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)

根據以下的流程圖之條件，樣品已完全溶解。

These samples were dissolved totally by pre-conditioning method according to below flow chart.

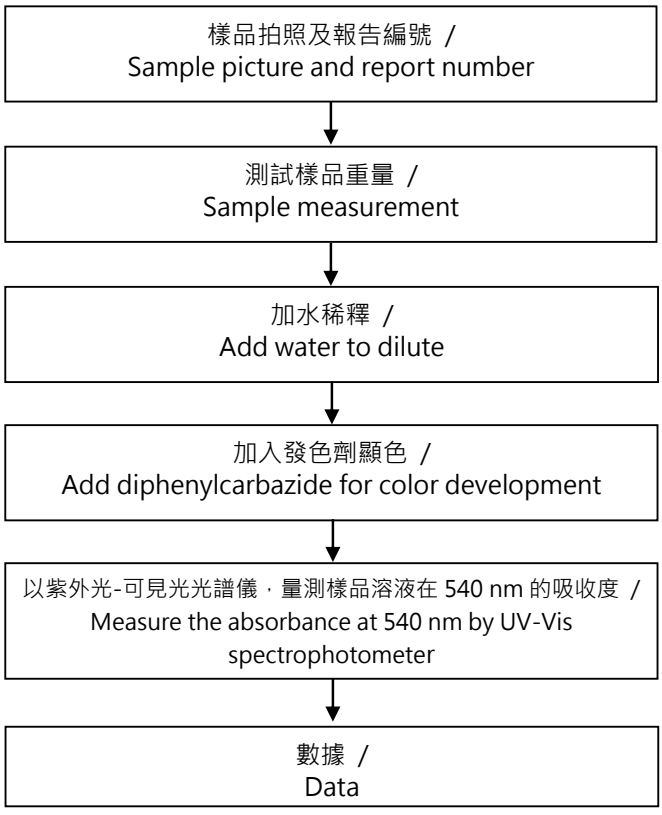


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

六價鉻分析流程圖 / Analytical flow chart - Hexavalent chromium Cr(VI)

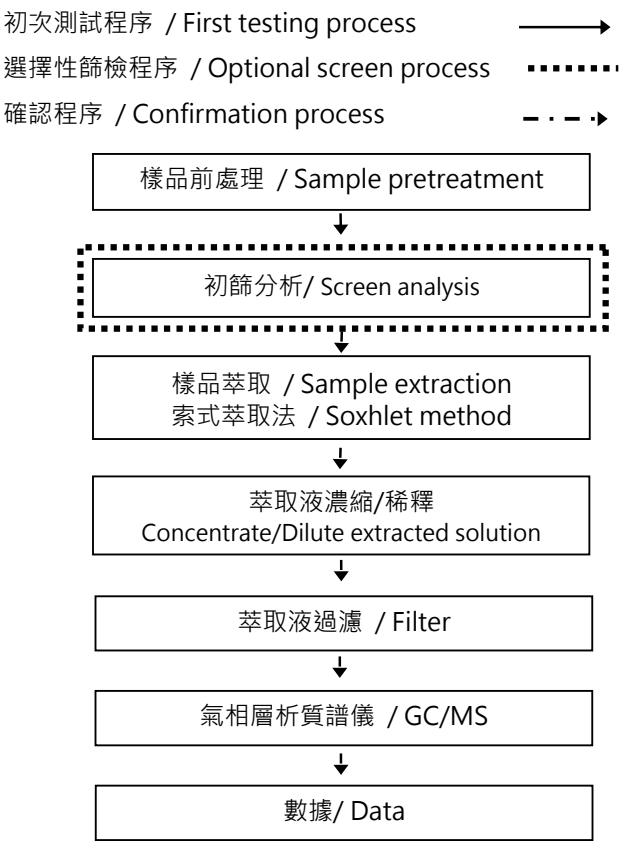
Test method: US EPA 7196A



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs

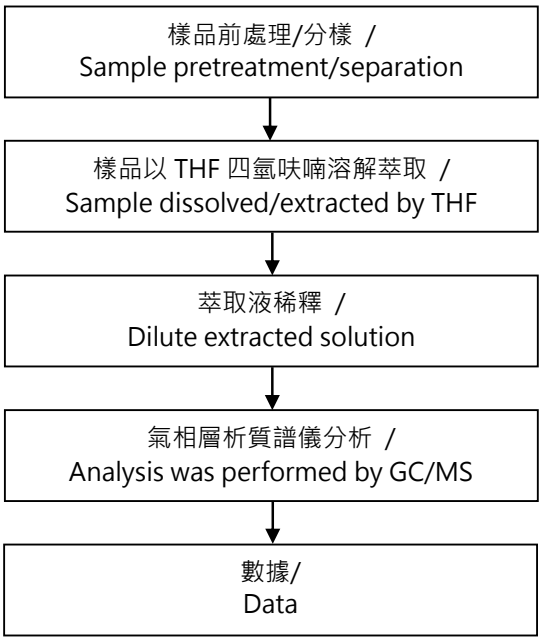


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

可塑劑分析流程圖 / Analytical flow chart - Phthalate

【測試方法/Test method: IEC 62321-8】



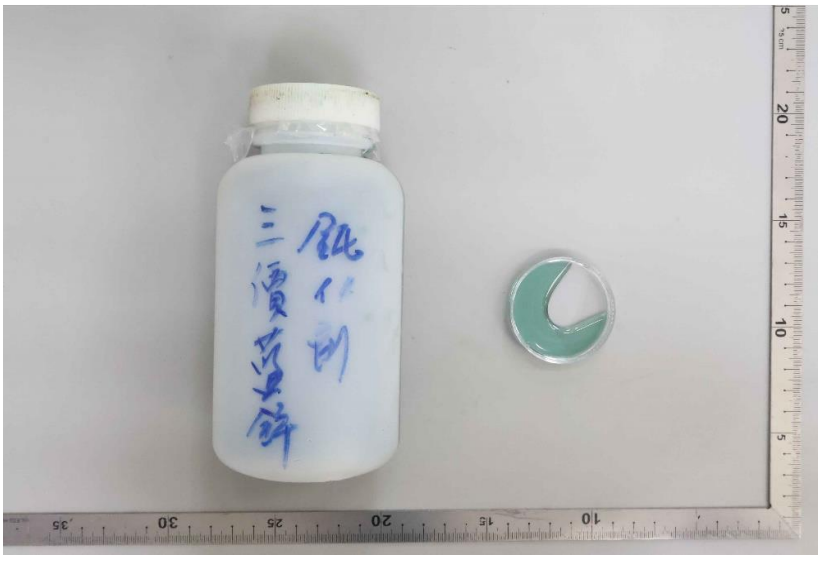
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告
Test Report

柯一有限公司 (KO-ILAN' S CO., LTD.)
桃園市桃園區大連二街4號 (NO.4, DALIAN 2ND ST., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN(R.O.C))

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

ETR23C04909



** 報告結尾 (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 https://www.sgs.com.tw/terms-of-service and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com.tw/terms-of-service. 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.

測試報告

報告編號: HTH23300142　　報告日期: 2023/04/07　　

勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

以下測試樣品係由申請廠商所提供及確認：

送樣廠商	:	勵龍企業有限公司
樣品名稱	:	1215 MS環保素材電鍍環保鋅
樣品型號	:	鉚釘成品

==========

收件日	:	2023/03/25
測試期間	:	2023/03/25 to 2023/04/07

測試需求　:　依據客戶要求進行測試，測試項目請參閱測試結果表格。

測試結果　:　請見下一頁。

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

此報告是本公司依照背面所印之通用服務條款所簽發，此條款可在本公司網站 http://www.sgs.com.tw/Terms-and-Conditions 閱覽，凡電子文件之格式依 http://www.sgs.com.tw/Terms-and-Conditions 之電子文件期限與條件處理。請注意條款有關於責任、賠償之限制及管轄權的約定。任何持有此文件者，請注意本公司製作之結果報告書將僅反映執行時所紀錄且於接受指示範圍內之事實。本公司僅對客戶負責，此文件不妨礙當事人在交易上權利之行使或義務之免除。未經本公司事先書面同意，此報告不可部份複製。任何未經授權的變更、偽造、或曲解本報告所顯示之內容，皆為不合法，違犯者可能遭受法律上最嚴厲之追訴。除非另有說明，此報告結果僅對測試之樣品負責。

測試報告

報告編號: HTH23300142　　報告日期: 2023/04/07　　

勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

測試部位敘述

No.1　　:　銀色金屬

測試結果

測試項目	測試方法	單位	RL	結果
				No.1
氟 (F) (CAS No.14762-94-8)	參考BS EN 14582: 2016，以離子層析儀分析。	mg/kg	50	n.d.
氯 (Cl) (CAS No.22537-15-1)		mg/kg	50	n.d.
溴 (Br) (CAS No.10097-32-2)		mg/kg	50	n.d.
碘 (I) (CAS No.14362-44-8)		mg/kg	50	n.d.

備註：

1. mg/kg = ppm；0.1% = 1000 ppm
2. RL = 報告極限值
3. n.d. = Not Detected (未檢出) = 小於 RL
4. 本報告不得分離或擷錄使用。

此報告是本公司依照背面所印之通用服務條款所簽發，此條款可在本公司網站 http://www.sgs.com.tw/Terms-and-Conditions 閱覽，凡電子文件之格式依 http://www.sgs.com.tw/Terms-and-Conditions 之電子文件期限與條件處理。請注意條款有關於責任、賠償之限制及管轄權的約定。任何持有此文件者，請注意本公司製作之結果報告書將僅反映執行時所紀錄且於接受指示範圍內之事實。本公司僅對客戶負責，此文件不妨礙當事人在交易上權利之行使或義務之免除。未經本公司事先書面同意，此報告不可部份複製。任何未經授權的變更、偽造、或曲解本報告所顯示之內容，皆為不合法，違犯者可能遭受法律上最嚴厲之追訴。除非另有說明，此報告結果僅對測試之樣品負責。

測試報告

報告編號: HTH23300142　　報告日期: 2023/04/07　　

勵龍企業有限公司
新北市三重區仁華街80巷8弄2號

* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。 *

HTH23300142



** 報告結尾 **

此報告是本公司依照背面所印之通用服務條款所簽發，此條款可在本公司網站 http://www.sgs.com.tw/Terms-and-Conditions 閱覽，凡電子文件之格式依 http://www.sgs.com.tw/Terms-and-Conditions 之電子文件期限與條件處理。請注意條款有關於責任、賠償之限制及管轄權的約定。任何持有此文件者，請注意本公司製作之結果報告書將僅反映執行時所紀錄且於接受指示範圍內之事實。本公司僅對客戶負責，此文件不妨礙當事人在交易上權利之行使或義務之免除。未經本公司事先書面同意，此報告不可部份複製。任何未經授權的變更、偽造、或曲解本報告所顯示之內容，皆為不合法，違犯者可能遭受法律上最嚴厲之追訴。除非另有說明，此報告結果僅對測試之樣品負責。

安全資料表

一、化學品與廠商資料

化學品名稱：鋅
建議用途及限制使用：使用於電鍍、熔鑄…等
製造商、輸入者或供應商名稱：柯一有限公司 製造商或供應商地址：330 桃園縣桃園市桃園區大連二街4號1樓 製造商或供應商電話：03-316-3256
緊急聯絡電話／傳真電話：03-316-3256

二、危害辨識資料

化學品危害分類：
標示內容：  象徵符號： 警示語：警告 危害警告訊息：－ 危害防範措施：置於通風良好處
其他危害：

三、成分辨識資料

純物質：

中英文名稱：鋅(ZINC)
同義名稱：無
化學文摘社登記號碼（CAS No）：7440-66-6
危害成分（成分百分比）：98.5%以上

混合物：

化學性質：		
危害物質成分之中英文名稱	化學文摘社登記號碼（CAS No.）	濃度或濃度範圍（成分百分比）
ZINC	7440-66-6	>99.995%

四、急救措施

不同暴露途徑之急救方法： 吸　入：遠離鋅塵。鋅粉塵可能有刺激性 皮膚接觸：鋅邊極為銳利，處置不當易割傷 眼睛接觸：鋅粉塵可能對眼睛有刺激性 食　入：不適用，不適合用藉由此途徑暴露

安全資料表

最重要症狀及危害效應：無嚴重之效應產生
對急救人員之防護：一
對醫師之提示：

五、滅火措施

適用滅火劑：一
滅火時可能遭遇之特殊危害： 可燃性不易燃。當加熱分解時可能演變氧化鋅。非易燃。無火災或爆炸危險。
特殊滅火程序： 火災和爆炸滅火不易燃。
消防人員之特殊防護裝備：

六、洩漏處理方法

個人應注意事項：應依建議穿著個人防護具
環境注意事項：鋅為固體狀，不需考慮洩漏溢出或釋出等因素
清理方法：可以用清掃或真空吸塵方式清理以避免粉塵

七、安全處置與儲存方法

處置：鋅之鋅邊極為銳利，處理時建議穿著防護手套。
儲存：儲存環境建議保持相對濕度60%以下，溫度30℃以下避免氧化，但若儲存場所不符建議條件並無影響安全之疑慮。

八、暴露預防措施

工程控制：一般排氣裝置
控制參數： 八小時日時量平均容許濃度（PEL－TWA）： 短時間時量平均容許濃度（PEL－STEL）： 最高容許濃度（PEL－Ceiling）： 生物指標（BEI）：
個人防護設備： 呼吸防護：如果有粉塵，請著符合國家標準之防護呼吸具。 手部防護：鋅邊緣相當銳利，作業時需戴綿紗或皮革手套，避免被割傷。 眼睛防護：安全護目鏡，護面罩，洗眼設備 皮膚及身體防護：乾淨衣服或著防護衣。
衛生措施： 工作場所嚴禁抽煙或飲食。維持良好之內務管理。

九、物理及化學性質

安全資料表

物質狀態：固體	形狀: 固體
顏色：	氣味：無味
pH 值：無	沸點/沸點範圍：
易燃性（固體、氣體）:	閃火點：不適用℉不適用℃
分解溫度：	測試方法：
自燃溫度：不適用	爆炸界限：
熔點：	蒸氣密度：—
密度：8.908@20℃(水=1)	溶解度：不可溶解的

十、安定性及反應性

安定性：正常狀況下具安定性。
特殊狀況下可能之危害反應：無資料
應避免之狀況：無資料
應避免之物質（或不相容物）：
危害分解物：無

十一、毒性資料

進入人體之途徑： 急毒性：—
症狀：咳嗽、呼吸急促、呼吸困難、胸緊、金屬燻煙熱、寒冷、發熱、感冒症狀。
慢毒性或長期毒性：—

十二、生態資料

生態毒性：LC50(魚類）：— EC50(水生無脊椎動物）：— 生物濃縮係數(BCF）：— 持久性及降解性：— 生物蓄積性：— 土壤中之流動性：— 其他不良效應：防止缺染下水道

十三、廢棄處置方法

廢棄處置方法：可完全回收

安全資料表

十四、運送資料

聯合國編號：無
聯合國運輸名稱：無
運輸危害分類：無
包裝類別：－
海洋污染物（是／否）：無
特殊運送方法及注意事項：－

十五、法規資料

適用法規：

十六、其他資料

參考文獻	
製表單位	名稱：柯一有限公司
	地址：330 桃園縣桃園市桃園區大連二街4號1樓 電話：03-316-3256
製表日期	112.06.05
備 註	上述資料中符號”一”代表目前查無相關資料，而符號”/”代表此欄位對該物質並不適用。

本資料表參考國內外文獻及供應商提供之原文資料編制而成，本公司對上述資料已力求正確，以上資訊僅供參考，使用者應依據現場狀況，判斷其可用性，此檔不能當作任何的法律依據。

雄業實業股份有限公司

■組立
□沖壓

製程作業標準書

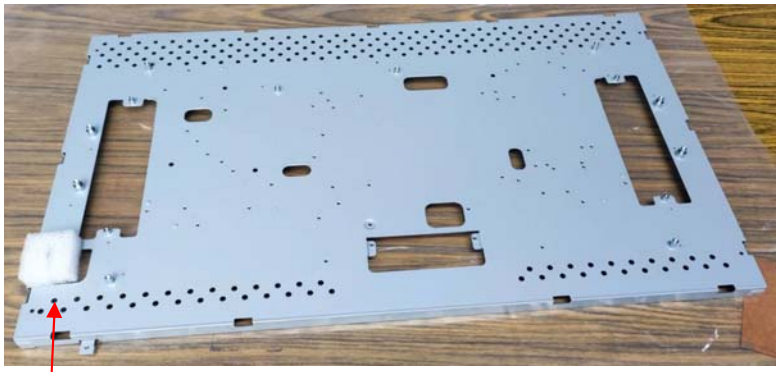
文件編號: HY-SOP-3MD364ME02B A/0

客戶	鈺緯	機種		料號	3MD364ME02B(M2928)			品名	MAIN BRACKET 27"
工段		作業別	包裝	機台編號		噸數		材質	SECC T=1.0mm

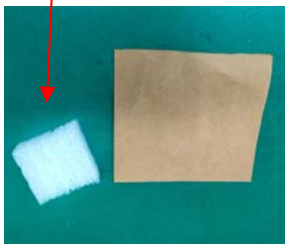
使用工具/機台設定		零組件/數量	
1		1	專用箱內徑640*230*390mm
2		2	格板640*390mm
3		3	防潮紙
4		4	舒服多切段

工序內容	
1	8PCS/箱
2	單一包裝
3	防撞泡棉要裝上
4	
5	
6	
7	
8	
9	
10	

作業重點	
1	裝袋時每包放1/4張防鏽紙，
2	裝箱時正反擺放整齊，
3	最上面放張牛皮紙
4	
5	
6	









不良履歷			
1		4	
2		5	
3		6	

核准	張緒杰	審核	李政育	製表	黃意雯

製表日期	版本	修定內容
113.09.12	A0	新訂