

Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

以下測試樣品係由客戶送樣,且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as):

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

送樣廠商(Sample Submitted By) : MITSUI HIGH-TEC INC 樣品名稱(Sample Description) : C7025+Ag PLATING

: 2019/03/04 收件日期(Sample Receiving Date)

測試期間(Testing Period) 2019/03/04 to 2019/03/12

測試需求(Test Requested)

(1) 依據客戶指定,參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試編、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).)

(2) 其他測試項目請見下一頁 . (Please refer to next pages for the other item(s).)

測試結果(Test Results)

: 請見下一頁 (Please refer to next pages).

結論(Conclusion)

(1) 根據客戶所提供的樣品,其錦、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, DBP, 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/技術經 Ray Chang, Ph.D/Manager -Te

Signed for and on behalf of

SGS Taiwan Limited

化學實驗室-高雄/Chemical Laborator

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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/terms-and-conditions/terms-e-document. And 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 unauthfortized 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.

頁數(Page): 1 of 20



Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試結果(Test Results)

測試部位(PART NAME) NO.1 銀色/銅色 C7025+Ag PLATING (SILVER/COPPER COLORED C7025+Ag PLATING+ROUGH COPPER TREATMENT)

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

結果 法規 方法偵測 測試項目 單位 測試方法 極限值 (Result) 限值 (Unit) (Test Items) (Method) (MDL) NO. 1 (Limit) 鑷 / Cadmium (Cd) 參考IEC 62321-5: 2013,以感應耦合電漿 mg/kg n d 100 原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES. 鉛 / Lead (Pb) mg/kg 參考IEC 62321-5: 2013,以感應耦合電漿 1000 n. d. 原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES. 參考IEC 62321-4: 2013,以感應耦合電漿 2 汞 / Mercury (Hg) n. d. 1000 mg/kg 原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES. 參考IEC 62321-7-1:2015,以UV-VIS檢測. 六價鉻 / Hexavalent Chromium 0 10 μg/cm² n. d. Cr(VI)(#2)/ With reference to IEC 62321-7-1:2015 and performed by by UV-VIS. 全氟辛烷磺酸 / Perfluorooctane 10 mg/kg 參考US EPA 3550C: 2007, 以液相層析/質 n. d. sulfonates (PFOS) 譜儀檢測. / With reference to US EPA 全氟辛酸(銨) / PFOA (CAS No.: 335-3550C: 2007. Analysis was performed by 10 mg/kg n. d. 67-1)LC/MS. 多溴聯苯總和 / Sum of PBBs mg/kg n. d 1000 一溴聯苯 / Monobromobiphenyl 5 <u>n</u>. d. mg/kg 二溴聯苯 / Dibromobiphenyl 5 _ mg/kg n. d. 三溴聯苯 / Tribromobiphenyl mg/kg 5 n. d. 四溴聯苯 / Tetrabromobiphenyl 參考IEC 62321-6:2015,以氣相層析/質譜 5 mg/kg n. d. 五溴聯苯 / Pentabromobiphenyl mg/kg 儀檢測. / With reference to IEC 62321-5 n. d. _ 六溴聯苯 / Hexabromobiphenyl 6:2015 and performed by GC/MS. 5 mg/kg n. d. Heptabromobiphenyl 5 七溴聯苯 / mg/kg n. d. 八溴聯苯 / Octabromobipheny1 mg/kg 5 n. d. 5 九溴聯苯 / Nonabromobiphenvl mg/kg n. d. 5 Decabromobiphenyl 十溴聯苯 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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 2 of 20



頁數(Page): 3 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		_	n. d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	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	參考IEC 62321-6:2015,以氣相層析/質譜	5	n. d.	_
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg	儀檢測. / With reference to IEC 62321-	5	n. d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg	6:2015 and performed by GC/MS.	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.	-
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052: 1996,以感應耦合電漿	2	n. d.	_
·		原子發射光譜儀檢測. / With reference			
		to US EPA 3052: 1996. Analysis was			
		performed by ICP-AES.			
鉞 / Beryllium (Be)	mg/kg	參考US EPA 3052: 1996,以感應耦合電漿	2	n. d.	-
		原子發射光譜儀檢測. / With reference			
		to US EPA 3052: 1996. Analysis was			
		performed by ICP-AES.			
氧化鈹 / Beryllium oxide (BeO)	mg/kg	由鈹結果計算得之. / Calculated from	2 (🛕)	n. d.	-
		the result of Beryllium.			
砷 / Arsenic (As)	mg/kg	參考US EPA 3052: 1996,以感應耦合電漿	2	n. d.	_
		原子發射光譜儀檢測. / With reference			
		to US EPA 3052: 1996. Analysis was			
		performed by ICP-AES.			
磷 / Phosphorus (P)	mg/kg	參考US EPA 3052: 1996,以感應耦合電漿	2	n. d.	-
		原子發射光譜儀檢測. / With reference			
		to US EPA 3052: 1996. Analysis was			
		performed by ICP-AES.			
多氯聯苯 / Polychlorinated	mg/kg	參考US EPA 3550C: 2007,以氣相層析/質	0.5	n. d.	_
Biphenyls (PCBs)		譜儀檢測. / With reference to US EPA			
		3550C: 2007. Analysis was performed by			
		GC/MS.			



Test Report

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

頁數(Page): 4 of 20

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
多氣奈 / Polychlorinated Naphthalene (PCNs)	mg/kg	參考US EPA 3550C: 2007,以氣相層析/質 譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by GC/MS.	5	n. d.	-
多氣三聯苯 / Polychlorinated Terphenyls (PCTs)	mg/kg	参考US EPA 3550C: 2007,以氣相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by GC/MS.	0. 5	n. d.	-
短鏈氣化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8))	mg/kg	参考US EPA 3550C: 2007,以氣相層析儀/電子補捉偵測器檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by GC/ECD.	100	n. d.	-
鹵素 / Halogen					
鹵素(氟)/ Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg		50	n. d.	-
鹵素 (氣) / Halogen-Chlorine (C1) (CAS No.: 22537-15-1)	mg/kg	參考BS EN 14582:2016,以離子層析儀檢 測. / With reference to BS EN	50	n. d.	-
鹵素(溴)/ Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg	14582:2016. Analysis was performed by IC.	50	n. d.	-
鹵素(碘)/ Halogen-Iodine(I) (CAS No.: 14362-44-8)	mg/kg		50	n. d.	-
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008,以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008. Analysis was performed by GC/MS.	5	n. d.	-



Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
有機錫 / Organic-tin compounds					
三丁基錫 / Tributyl Tin (TBT)	mg/kg	參考ISO 17353: 2004,以氣相層析儀/火焰 光度偵測器檢測. / With reference to ISO 17353: 2004. Analysis was performed by GC/FPD.	0.03	n. d.	-
三苯基錫 / Triphenyl Tin (TphT)	mg/kg	参考ISO 17353: 2004,以氣相層析儀/火焰 光度偵測器檢測. / With reference to ISO 17353: 2004. Analysis was performed by GC/FPD.	0.03	n. d.	-
氧化雙三丁基錫 / Bis(tributyltin)oxide (TBTO) (CAS No.: 56-35-9)	mg/kg	參考ISO 17353: 2004,以氣相層析儀/火焰光度偵測器檢測;由三丁基錫測試結果計算得之. / With reference to ISO 17353: 2004. Analysis was performed by GC/FPD. Calculated from the result of Tributyl Tin (TBT).	0.03 (A)	n. d.	-
二丁基錫 / Dibutyl Tin (DBT)	mg/kg	参考ISO 17353: 2004,以氣相層析儀/火焰 光度偵測器檢測. / With reference to ISO 17353: 2004. Analysis was performed by GC/FPD.	0.03	n. d.	-
二辛基錫 / Dioctyl Tin (DOT)	mg/kg	参考ISO 17353: 2004,以氣相層析儀/火焰 光度偵測器檢測. / With reference to ISO 17353: 2004. Analysis was performed by GC/FPD.	0.03	n. d.	-
聚氯乙烯 / PVC	**	以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test.	-	Negative	-
可塑劑定量分析 / Phthalates					-
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68- 7)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質 譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質 譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 5 of 20



Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質 譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二異壬酯 / DINP (Di- isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二(C6-8支鏈與直鏈)烷基 酯,富C7 / DIHP (1,2- Benzenedicarboxylic acid, di-C6-8- branched alkyl esters, C7-rich) (CAS No.: 71888-89-6)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二(2-甲氧基乙基)酯 / DMEP (Bis (2-methoxyethyl) phthalate) (CAS No.: 117-82-8)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質 譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-
鄰苯二甲酸二己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 84-75-3)	mg/kg	參考IEC 62321-8:2017,以氣相層析儀/質 譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	-

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 6 of 20



Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

頁數(Page): 7 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
鄰苯二甲酸二(C7-11支鏈與直鏈)烷基 酯 / DHNUP (1,2- Benzenedicarboxylic acid, di-C7- 11-branched and linear alkyl esters) (CAS No.: 68515-42-4)		参考IEC 62321-8:2017,以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n. d.	1

備註(Note):

- 1. mg/kg = ppm; 0. 1wt% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出)
- 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 $0.10~\mu g/cm^2$),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
 - 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. **= Qualitative analysis (No Unit) 定性分析(無單位)
- 7. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
- 8. (▲): MDL是針對元素/測試化合物之評估. / The MDL was evaluated for element / tested substance.

換算公式 (Conversion Formula): AX = A × F

AX	A	F
氧化鈹 / Beryllium oxide (BeO)	鈹 / Beryllium	2. 7753
氧化雙三丁基錫 / Bis(tributyltin)oxide (TBTO)	三丁基錫 / Tributyl Tin (TBT)	1.0276



Test Report

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

PFOS参考資訊(Reference Information): 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm),在半成品、成品或零部件中不得超過0.1%(1000ppm),在紡織品或塗 層材料中不得超過1µg/m2。

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1 \mu g/m^2$.)

全氟辛烷磺酸指全氟辛烷磺酸和它的衍生物包括全氟辛烷磺酸,全氟辛基磺醯胺,N-甲基全氟辛烷磺酰胺,N-乙基全氟 辛烷磺酰胺, N-甲基全氟辛基磺酰基氨基乙醇, N-乙基全氟辛基磺酰基氨基乙醇。(PFOS refer to Perfluoroctanesulfonic acid and its derivatives including Perfluoroctanesulfonic acid, Perfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamide, N-Ethylperfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamidoethanol and N-Ethylperfluoroctane sulfonamidoethanol.)

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 https://www.sgs.com/en/Terms-e-document. 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.

頁數(Page): 8 of 20



Test Report

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

重金屬流程圖 / Analytical flow chart of Heavy Metal

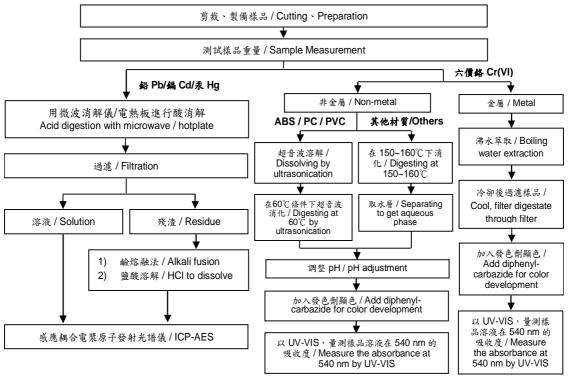
號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

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. (Cr⁶⁺ test method excluded)

測試人員:劉俊宏/Technician: Jony Liu

測試負責人:張伯睿/ Supervisor: Ray Chang



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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 9 of 20



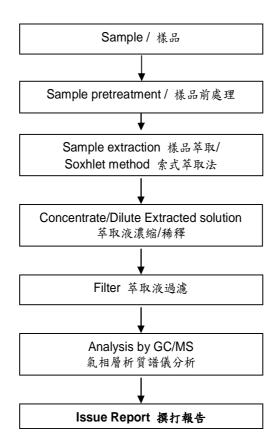
頁數(Page): 10 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC

10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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

測試人員:陳威錚 / Technician: Dorothy Chen 測試負責人:張伯睿 / Supervisor: Ray Chang





Test Report

MITSUI HIGH-TEC INC

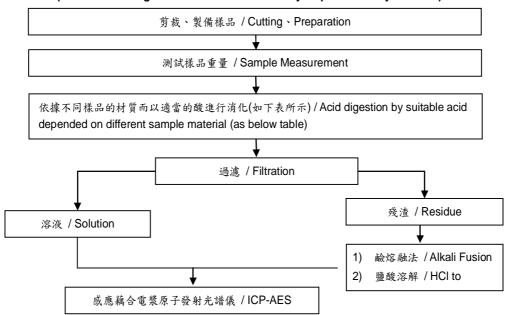
10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

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.

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

- 測試人員:劉俊宏/ Technician: Jony Liu
- 測試負責人:張伯睿/ Supervisor: Ray Chang

元素以 ICP-AES 分析的消化流程圖 (Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO3, HCI, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ /HF
金,鉑,鲃,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCI
其他 / Others	加入任何酸至完全溶解 / Any acid to total digestion

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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 11 of 20



Test Report

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

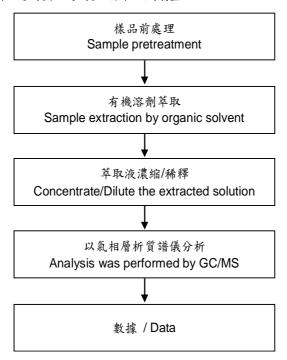
含氯阻燃劑分析流程 / Chlorinated Flame retardant analytical flow chart

■ 測試人員:陳威錚 / Technician: Dorothy Chen ■ 測試負責人:張伯睿 / Supervisor: Ray Chang

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

【參考方法(Reference method): US EPA 3550C】

【測試項目:多氯聯苯、多氯奈、多氯三聯苯、滅蟻靈 / Test Items: PCBs, PCNs, PCTs, Mirex】



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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 12 of 20



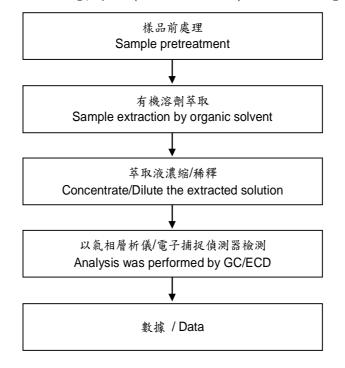
頁數(Page): 13 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

氯化石蠟分析流程圖 / Analytical flow chart - Chlorinated Paraffins

■ 測試人員:陳威錚 / Technician: Dorothy Chen 測試負責人:張伯睿 / Supervisor: Ray Chang

【參考方法(Reference method): US EPA 3550C】



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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

Member of the SGS Group

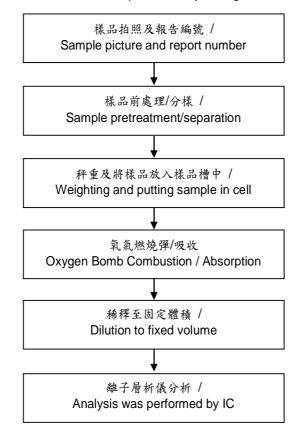


頁數(Page): 14 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

鹵素分析流程圖 / Analytical flow chart of halogen content

測試人員:洪秀真/ Technician: Jean Hung 測試負責人:張伯睿 / Supervisor: Ray Chang



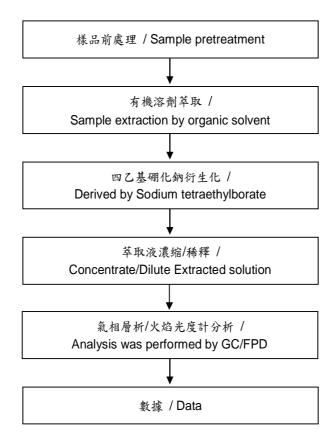


頁數(Page): 15 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

有機錫分析流程圖 / Analytical flow chart of Organic-Tin content

測試人員: 陳威錚 / Technician: Dorothy Chen 測試負責人:張伯睿 / Supervisor: Ray Chang



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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

Member of the SGS Group

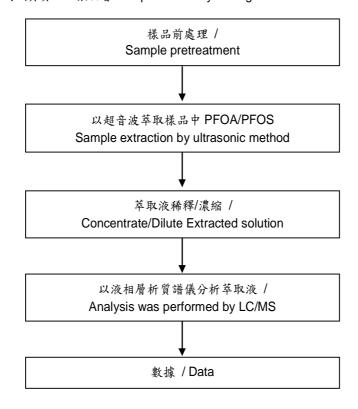


頁數(Page): 16 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

全氟辛酸(銨)/ 全氟辛烷磺酸分析流程圖 / Analytical flow chart of PFOA/PFOS content

測試人員:黃璟瓔 / Technician: Ginny Huang 測試負責人:張伯睿 / Supervisor: Ray Chang



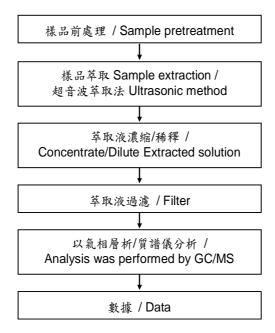


頁數(Page): 17 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

六溴環十二烷分析流程圖 / HBCDD analytical flow chart

測試人員:陳威錚 / Technician: Dorothy Chen 測試負責人:張伯睿 / Supervisor: Ray Chang





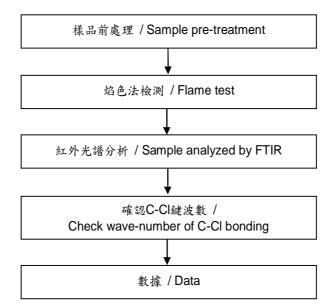
Test Report

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

聚氯乙烯物質判定分析流程圖 / Analysis flow chart for determination of PVC in material

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

測試人員: 戴秀純 / Technician: Hannah Tai 測試負責人: 林立翔 / Supervisor: Roger Lin



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 https://www.sgs.com/en/Terms-and-Conditions/ferms-e-document. 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.

頁數(Page): 18 of 20



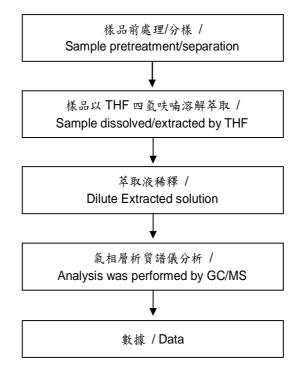
頁數(Page): 19 of 20 號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

可塑劑分析流程圖 / Analytical flow chart of phthalate content

測試人員:陳威錚 / Technician: Dorothy Chen 測試負責人:張伯睿 / Supervisor: Ray Chang

【測試方法/Test method: IEC 62321-8】





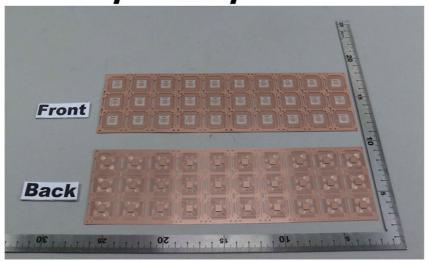
Test Report

MITSUI HIGH-TEC INC 10-1, KOMINE 2-CHOME, YAHATANISHI-KU KITAKYUSHU, 807-8588, JAPAN

> * 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.)

號碼(No.): KA/2019/30188 日期(Date): 2019/03/12

KA/2019/30188



** 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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/Terms-and-conditions/terms-e-document. 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 document document or 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.

頁數(Page): 20 of 20