



TEST REPORT

NUMBER : THJ0070403

APPLICANT 申請商: PANTECH TAPE CO., LTD.
全科企業股份有限公司
NO 8 ALLEY 98 LANE 800
CHUNG SHAN SOUTH ROAD
YANGMEI TAOYUAN 32669

DATE : FEB 27, 2008

SAMPLE DESCRIPTION 樣品敘述:

ONE (1) GROUP OF SUBMITTED SAMPLES SAID TO BE :
以下測試樣品乃供應商所提供及確認:

SAMPLE DESCRIPTION : PE 保護膜
樣品名稱
STYLE / ITEM NO. : PE-500&PE-501
產品型號
COUNTRY OF ORIGIN : 台灣
原產國
SUPPLIER'S NAME : 全科企業股份有限公司
供應商名稱
DATE SAMPLE RECEIVED : FEB 20, 2008
收件日期
DATE TEST STARTED : FEB 21, 2008
開始測試日期

TEST CONDUCTED 測試執行:

AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE REFER TO ATTACHED PAGES.
依申請商之要求, 細節請參考附頁.

AUTHORIZED BY:
ON BEHALF OF INTERTEK TESTING SERVICES
TAIWAN LIMITED



K. Y. LIANG
DIRECTOR

THIS REPORT SHALL NOT BE REPRODUCED
EXCEPT IN FULL, WITHOUT THE WRITTEN
APPROVAL OF THE LABORATORY.



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TEST CONDUCTED

(I) TEST RESULT SUMMARY 測試結果:

TESTING ITEM 測試項目	RESULT 結果 (ppm)
	SEMI-TRANSPARENT PLASTIC FILM
HEAVY METAL / 重金屬	
CADMIUM (Cd) CONTENT / 鎘含量	ND
LEAD (Pb) CONTENT / 鉛含量	ND
MERCURY (Hg) CONTENT / 汞含量	ND
CHROMIUM VI (Cr ⁶⁺) CONTENT / 六價鉻含量	ND
POLYBROMINATED BIPHENYLS (PBBs) / 多溴聯苯	
MONOBROMINATED BIPHENYLS (MONOBB) / 單溴聯苯	ND
DIBROMINATED BIPHENYLS (DIBB) / 二溴聯苯	ND
TRIBROMINATED BIPHENYLS (TRIBB) / 三溴聯苯	ND
TETRABROMINATED BIPHENYLS (TETRABB) / 四溴聯苯	ND
PENTABROMINATED BIPHENYLS (PENTABB) / 五溴聯苯	ND
HEXABROMINATED BIPHENYLS (HEXABB) / 六溴聯苯	ND
HEPTABROMINATED BIPHENYLS (HEPTABB) / 七溴聯苯	ND
OCTABROMINATED BIPHENYLS (OCTABB) / 八溴聯苯	ND
NONABROMINATED BIPHENYLS (NONABB) / 九溴聯苯	ND
DECABROMINATED BIPHENYL (DECABB) / 十溴聯苯	ND
POLYBROMINATED DIPHENYL ETHERS (PBDEs) / 多溴聯苯醚	
MONOBROMINATED DIPHENYL ETHERS (MONOBDE) / 單溴聯苯醚	ND
DIBROMINATED DIPHENYL ETHERS (DIBDE) / 二溴聯苯醚	ND
TRIBROMINATED DIPHENYL ETHERS (TRIBDE) / 三溴聯苯醚	ND
TETRABROMINATED DIPHENYL ETHERS (TETRABDE) / 四溴聯苯醚	ND
PENTABROMINATED DIPHENYL ETHERS (PENTABDE) / 五溴聯苯醚	ND
HEXABROMINATED DIPHENYL ETHERS (HEXABDE) / 六溴聯苯醚	ND
HEPTABROMINATED DIPHENYL ETHERS (HEPTABDE) / 七溴聯苯醚	ND
OCTABROMINATED DIPHENYL ETHERS (OCTABDE) / 八溴聯苯醚	ND
NONABROMINATED DIPHENYL ETHERS (NONABDE) / 九溴聯苯醚	ND
DECABROMINATED DIPHENYL ETHER (DECABDE) / 十溴聯苯醚	ND
HALOGEN CONTENT / 鹵素含量	
FLUORINE (F) / 氟	ND
CHLORINE (Cl) / 氯	ND
BROMINE (Br) / 溴	ND
IODINE (I) / 碘	ND

CHEMIST: INORGANIC (WILLIAN CHEN/ING KUO/RALF CHANG)
分析人員 ORGANIC (VICO LIN)

REMARKS 備註: ppm = PARTS PER MILLION BASED ON WEIGHT OF TESTED SAMPLE
= 百萬分之一, 依據測試樣品重量計算
ND = NOT DETECTED = 未檢測出

DATE SAMPLE RECEIVED : FEB 20, 2008

樣品收件日期
TESTING PERIOD : FEB 21, 2008 TO FEB 26, 2008
樣品測試期間



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(II) TEST METHOD 測試方法:

TESTING ITEM 測試項目	TESTING METHOD 測試方法	REPORTING LIMIT 報告極限
CADMIUM (Cd) CONTENT 鎘含量	WITH REFERENCE TO IEC 62321, Ed.1, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES (SEE NOTE) 參考IEC 62321, Ed.1, 以微波消化並用感應耦合電漿原子放射光譜儀分析。(見注釋)	2 ppm
LEAD (Pb) CONTENT 鉛含量	WITH REFERENCE TO IEC 62321, Ed.1, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES (SEE NOTE) 參考IEC 62321, Ed.1, 以微波消化並用感應耦合電漿原子放射光譜儀分析。(見注釋)	2 ppm
MERCURY (Hg) CONTENT 汞含量	WITH REFERENCE TO IEC 62321, Ed.1, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES (SEE NOTE) 參考IEC 62321, Ed.1, 以微波消化並用感應耦合電漿原子放射光譜儀分析。(見注釋)	2 ppm
CHROMIUM VI (Cr ⁶⁺) CONTENT 六價鉻含量	WITH REFERENCE TO IEC 62321, Ed.1, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER (SEE NOTE) 參考IEC 62321, Ed.1, 以鹼液消化並用紫外光-可見光分光光度計分析。(見注釋)	1 ppm
POLYBROMINATED BIPHENYLS (PBBs) 多溴聯苯	WITH REFERENCE TO IEC 62321, Ed.1, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD (SEE NOTE) 參考IEC 62321, Ed.1, 以溶劑萃取並用氣相層析-質譜儀分析。(見注釋)	5 ppm
POLYBROMINATED DIPHENYL ETHERS (PBDEs) 多溴聯苯醚	WITH REFERENCE TO IEC 62321, Ed.1, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD (SEE NOTE) 參考IEC 62321, Ed.1, 以溶劑萃取並用氣相層析-質譜儀分析。(見注釋)	5 ppm
HALOGEN CONTENT 鹵素含量	WITH REFERENCE TO IEC 61189-2:2006 BY COMBUSTION FLASK WITH OXYGEN AND DETERMINED BY ION CHROMATOGRAPHY 參考IEC 61189-2:2006, 以氧氣燃燒瓶燃燒集氣法並用離子層析儀分析。	50 ppm

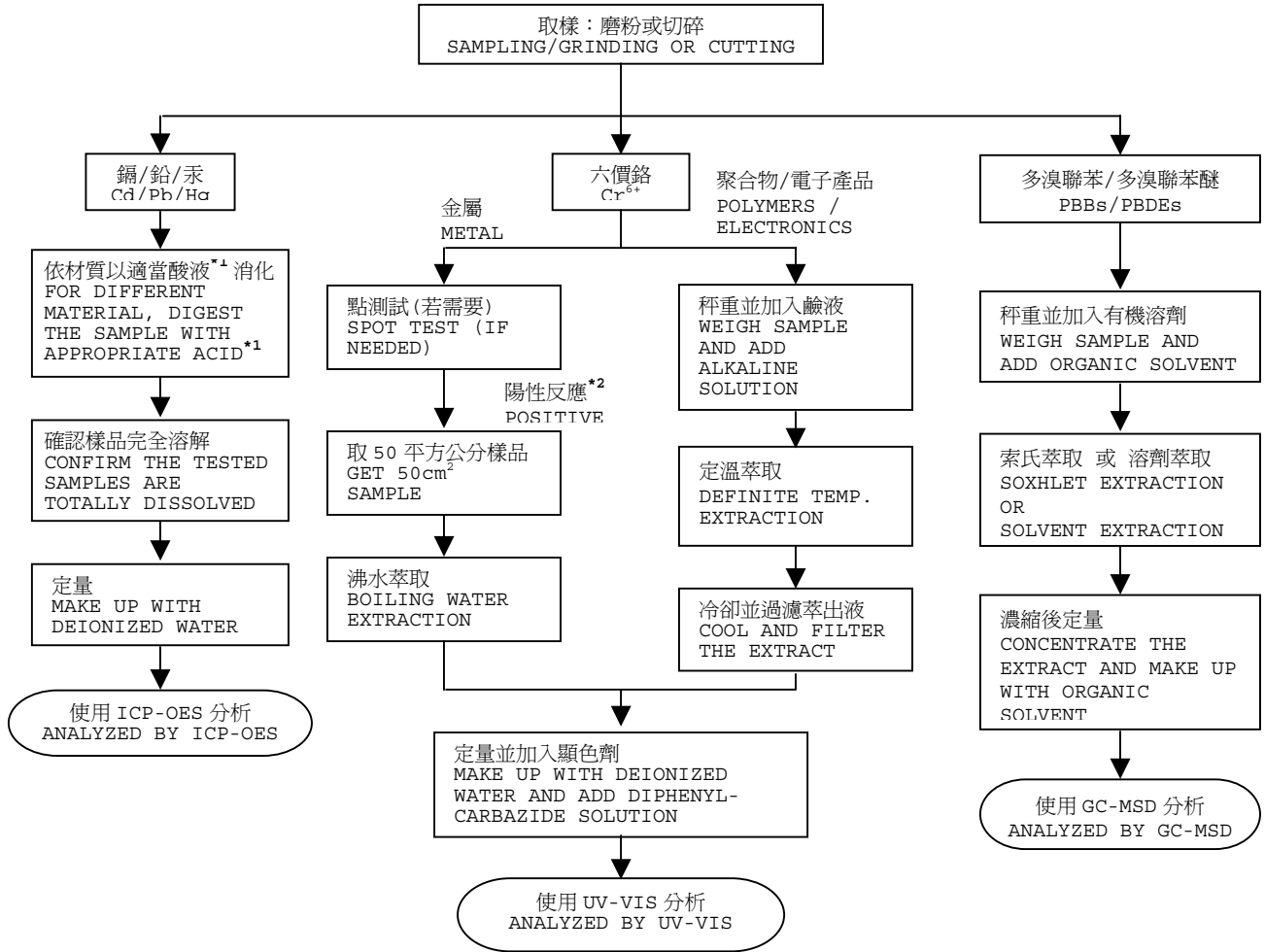
REMARK 備註: REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE
報告極限 = 測試樣品之定量偵測極限

NOTE 注釋: WITH REFERENCE TO 111/54/CDV VERSION 2006-05-05, THE METHOD IS STILL UNDER DEVELOPMENT BY IEC TC/111 WG3 AND IS ADOPTED ONLY UPON CLIENT'S REQUEST.
參考111/54/CDV VERSION 2006-05-05, 此方法仍由IEC TC/111 WG3草擬中, 測試係依據客戶之要求而執行。

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(III) MEASUREMENT FLOWCHART 測試流程圖:

TEST FOR Cd/Pb/Hg/CHROMIUM (VI)/PBBS/PBDES CONTENTS ROHS六項測試流程圖
 REFERENCE STANDARD 參考方法: IEC 62321 (111/54/CDV)



REMARKS 備註:

*1: LIST OF APPROPRIATE ACID 各材質添加酸液如下表:

MATERIAL 樣品材質	ACID ADDED FOR DIGESTION 添加酸液種類
POLYMERS / 聚合物	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃ 硝酸、鹽酸、氫氟酸、雙氧水、硼酸
METALS / 金屬	HNO ₃ , HCl, HF 硝酸、鹽酸、氫氟酸
ELECTRONICS / 電子產品	HNO ₃ , HCl, H ₂ O ₂ , HBF ₄ 硝酸、鹽酸、雙氧水、氟硼酸

*2: IF THE RESULT OF SPOT TEST IS NEGATIVE, CHROMIUM VI WOULD BE DETERMINED AS NOT DETECTED (ND).

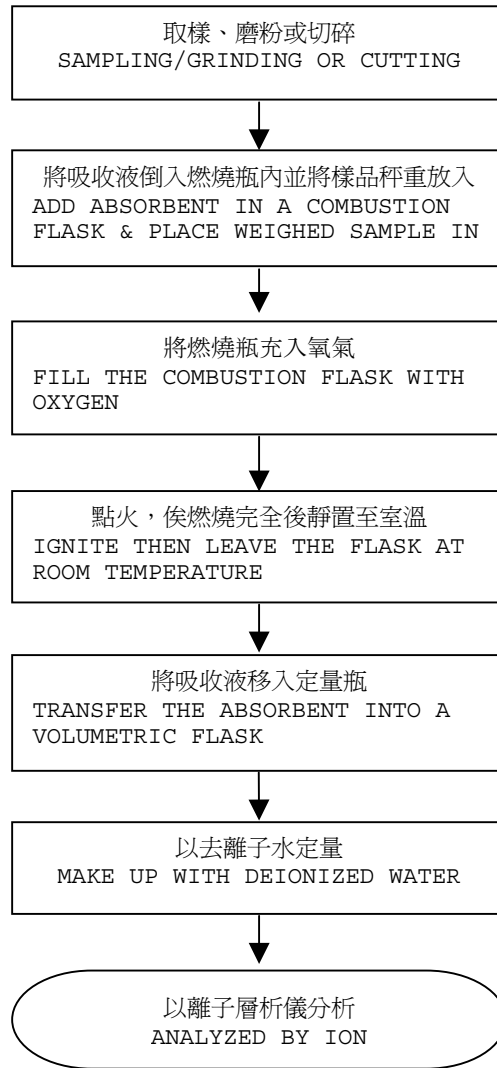
若點測試的結果為陰性反應，則直接判定為不含有六價鉻。

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(III) 測試流程圖 MEASUREMENT FLOWCHART:

鹵素測試流程圖 TEST FOR HALOGEN CONTENT

參考方法 REFERENCE METHOD: IEC 61189-2 TEST 2C12



END OF REPORT

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PHOTO

