

TEST REPORT (시험성적서)

신청기관 (인) : 롯데에너지머티리얼즈 주식회사
APPLICANT : LOTTE ENERGY MATERIALS Corp.
주소 (한글) : 전라북도 익산시 석암로3길 63-25
ADDRESS (ENGL.) : 63-25, Seogam-ro 3-gil,
Iksan-si, Jeollabuk-do, Korea

발행면수 (PAGE) : 1 of 20
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료 명세 : 시료에 대한 상세한 정보는 아래와 같음
(SAMPLE DESCRIPTION) (The following submitted sample(s) said to be)

제품명/형식 : Copper-Foil
(NAME/TYPE OF PRODUCT) (Copper-Foil)

재질 : Copper
(NAME OF MATERIAL) (Copper)

시료고유번호 : RT25R-S2243
(SAMPLE ID NO.) (RT25R-S2243)

제품 생산자/공급자 : 롯데에너지머티리얼즈 주식회사
(MANUFACTURER/VENDOR) (LOTTE ENERGY MATERIALS Corp.)

시료접수일자 : 2025. 03. 25.
(SAMPLE RECEIVED) (Mar. 25, 2025)

시험일자 : 2025. 03. 25. ~ 2025. 04. 02.
(TESTING DATE) (Mar. 25, 2025 ~ Apr. 02, 2025)

시험방법 : 이 시험성적서의 다음 페이지 첨부
(TEST METHOD) (Please see the following page)

시험결과 : 이 시험성적서의 다음 페이지 첨부
(TEST RESULT) (Please see the following page)

비고 (Notes): 1. 이 시험성적서는 제시된 시료 및 시료명으로 시험한 결과로서 유사 대상시료에 적용할 수 없음.
(The test results presented in this report refer only to the object tested.)
2. 이 시험성적서는 승인없이 복사 사용을 금함.
(This report shall not be reproduced except in full without the written approval of the testing laboratory.)

승인자 (Approved by)

이청수/기술책임자
(Nikkie Lee / Lab. Technical Manager)

권한자 (Authorized by)

장준용/소장
(Jade Jang / Lab. General Manager)



Authenticity check



TEST REPORT (시험 성적서)

발행면수 (PAGE) : 2 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
카드뮴 (Cadmium, Cd)	mg/kg	With reference to IEC 62321-5 Edition 1.0 : 2013, by acid digestion and determined by ICP-OES	0.5	N.D.
납 (Lead, Pb)	mg/kg		5	N.D.
수은 (Mercury, Hg)	mg/kg	With reference to IEC 62321-4 : 2013/AMD1 : 2017, by acid digestion and determined by ICP-OES	2	N.D.
6가 크롬 (Hexavalent Chromium, Cr ⁶⁺) (For metal)	μg/cm ²	With reference to IEC 62321-7-1 Edition 1.0 : 2015, by boiling water extraction and determined by UV-VIS Spectrophotometer	0.10	Negative

Tested by : Jooyeon Lee, Chano Kim

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

μg/cm² = microgram per square centimeter

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)

MDL = Method detection limit (검출한계)

Remarks : Interpretation of Cr⁶⁺ results

Qualitative result	Concentration of Cr ⁶⁺ (μg/cm ²)	Meaning
Negative	< 0.10	The sample coating is considered a non-Cr ⁶⁺ based coating.
Inconclusive	0.10 ≤ and ≤ 0.13	Unavoidable coating variation may influence the determination.
Positive	> 0.13	The sample coating is considered to contain Cr ⁶⁺ .

1. The qualitative results should be determination by the average result of three test results.
(If concentration of Cr⁶⁺ is over 0.10μg/cm²)
2. The above results will be carried out by visual comparison only with the standard.

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 3 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
폴리브롬화비페닐 (Polybrominated Biphenyls, PBBs)				
모노브로모비페닐 (MonoBB)	mg/kg	With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS	5	N.D.
다이브로모비페닐 (DiBB)	mg/kg		5	N.D.
트라이브로모비페닐 (TriBB)	mg/kg		5	N.D.
테트라브로모비페닐 (TertaBB)	mg/kg		5	N.D.
펜타브로모비페닐 (PentaBB)	mg/kg		5	N.D.
헥사브로모비페닐 (HexaBB)	mg/kg		5	N.D.
헵타브로모비페닐 (HeptaBB)	mg/kg		5	N.D.
옥타브로모비페닐 (OctaBB)	mg/kg		5	N.D.
노나브로모비페닐 (NonaBB)	mg/kg		5	N.D.
데카브로모비페닐 (DecaBB)	mg/kg		5	N.D.
폴리브롬화디페닐에테르 (Polybrominated Diphenyl Ethers, PBDEs)				
모노브로모디페닐에테르 (MonoBDE)	mg/kg	With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS	5	N.D.
다이브로모디페닐에테르 (DiBDE)	mg/kg		5	N.D.
트라이브로모디페닐에테르 (TriBDE)	mg/kg		5	N.D.
테트라브로모디페닐에테르 (TetraBDE)	mg/kg		5	N.D.
펜타브로모디페닐에테르 (PentaBDE)	mg/kg		5	N.D.
헥사브로모디페닐에테르 (HexaBDE)	mg/kg		5	N.D.
헵타브로모디페닐에테르 (HeptaBDE)	mg/kg		5	N.D.
옥타브로모디페닐에테르 (OctaBDE)	mg/kg		5	N.D.
노나브로모디페닐에테르 (NonaBDE)	mg/kg		5	N.D.
데카브로모디페닐에테르 (DecaBDE)	mg/kg		5	N.D.

Tested by : Hayan Park

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)
< = Less than (결과 값 이하)
N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)
MDL = Method detection limit (검출한계)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 4 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
브롬 (Bromine, Br)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
염소 (Chlorine, Cl)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
플루오르 (Fluorine, F)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
요오드 (Iodine, I)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
비소 (Arsenic, As)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
금 (Gold, Au)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
베릴륨 (Beryllium, Be)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
인 (Phosphorus, P)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
안티몬 (Antimony, Sb)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
주석 (Tin, Sn)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
탄탈럼 (Tantalum, Ta)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
텅스텐 (Tungsten, W)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.

Tested by : Chano Kim, Jooyeon Lee

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)

MDL = Method detection limit (검출한계)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 5 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
폴리염화비닐 (Polyvinyl chloride, PVC)	-	With reference to KS K 0210-1, and determined by FT-IR	N.A.	Negative
석면 (Asbestos)	-	Determined by FT-IR	N.A.	Negative
Red Phosphorus	-	Determined by Pyrolyzer-GC/MS	N.A.	Negative
헥사브로모시클로도데칸 (Hexabromocyclododecane, HBCDD)	mg/kg	With reference to IEC 62321-9 : 2021, by solvent extraction and determined by LC/MS and GC/MS	10	N.D.
트리부틸주석화합물 (Tributyltin, TBT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
트리페닐주석화합물 (Triphenyltin, TPhT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
디부틸주석화합물 (Dibutyltin, DBT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
디옥틸주석화합물 (Diocetyl tin, DOT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.

Tested by : Jooyeon Lee, Hayan Park

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)

MDL = Method detection limit (검출한계)

N.A. = Not applicable (해당없음)

Negative = Undetectable (동종물질 불검출)

Positive = Detectable (동종물질 검출)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 6 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
폴리염화바이페닐 (Polychlorinated biphenyls, PCBs)	mg/kg	With reference to US EPA 3540C/8082, by solvent extraction and determined by GC/MS	5	N.D.
퍼플루오로옥타노익에시드 (Perfluorooctanoic acid, PFOA)	mg/kg	With reference to US EPA 3550C/8321B, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.025	N.D.
퍼플루오로옥탄설포네이트 (Perfluorooctane sulfonate, PFOS)	mg/kg	With reference to US EPA 3550C/8321B, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.025	N.D.
퍼플루오로옥타노익에시드 (Perfluorooctanoic acid, PFOA)	mg/kg	With reference to DIN CEN/ TS 15968, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.025	N.D.
퍼플루오로옥탄설포네이트 (Perfluorooctane sulfonate, PFOS)	mg/kg	With reference to DIN CEN/ TS 15968, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.025	N.D.

Tested by : Hayan Park

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)
< = Less than (결과 값 이하)
N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)
MDL = Method detection limit (검출한계)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 7 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
다환방향족탄화수소 (Polycyclic aromatic hydrocarbons, PAHs)				
나프탈렌 (Naphthalene)	mg/kg	With reference to AfPS GS 2019:01 PAK, by solvent extraction and determined by GC-MS	0.2	N.D.
페난트렌 (Phenanthrene) ¹⁾	mg/kg		0.2	N.D.
안트라센 (Anthracene) ¹⁾	mg/kg		0.2	N.D.
플로란센 (Fluoranthene) ¹⁾	mg/kg		0.2	N.D.
파이렌 (Pyrene) ¹⁾	mg/kg		0.2	N.D.
크리센 (Chrysene) ²⁾	mg/kg		0.2	N.D.
벤조(a)안트라센 (Benzo(a)anthracene) ²⁾	mg/kg		0.2	N.D.
벤조(b)플로란센 (Benzo(b)fluoranthene) ²⁾	mg/kg		0.2	N.D.
벤조(k)플로란센 (Benzo(k)fluoranthene) ²⁾	mg/kg		0.2	N.D.
벤조(a)파이렌 (Benzo(a)pyrene) ²⁾	mg/kg		0.2	N.D.
디벤조(a,h)안트라센 (Dibenzo(a,h)anthracene) ²⁾	mg/kg		0.2	N.D.
인데노(1,2,3-cd)파이렌 (Indeno(1,2,3-cd)pyrene) ²⁾	mg/kg		0.2	N.D.
벤조(g,h,i)페릴렌 (Benzo(g,h,i)perylene) ²⁾	mg/kg		0.2	N.D.
벤조(j)플로란센 (Benzo(j)fluoranthene) ²⁾	mg/kg		0.2	N.D.
벤조(e)파이렌 (Benzo(e)pyrene) ²⁾	mg/kg		0.2	N.D.
Sum of ¹⁾	mg/kg	-	N.D.	
Sum of 15 PAHs	mg/kg	-	N.D.	

Tested by : Hayan Park

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)

MDL = Method detection limit (검출한계)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 8 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

PAHs Limit

Parameter	Category 1	Category 2		Category 3	
Product	Materials indented to be put in the mouth, or materials of toys* with intended long-term skin contact (longer than 30s) for the use by children ^{A,B} up to 3 years of age	Materials not covered by category 1, with foreseeable skin contact for longer than 30 seconds (long-term skin contact) or repeated short-term skin contact **		Materials not covered by category 1 or 2 with foreseeable skin contact up to 30 seconds (short term skin contact)	
		A	B	A	B
Each ²⁾	0.2 mg/kg	0.2 mg/kg	0.5 mg/kg	0.5 mg/kg	1 mg/kg
Sum of ¹⁾	1 mg/kg	5 mg/kg	10 mg/kg	20 mg/kg	50 mg/kg
Naphthalene	1 mg/kg	2 mg/kg		10 mg/kg	
Sum of 15 PAHs	1 mg/kg	5 mg/kg	10 mg/kg	20 mg/kg	50 mg/kg

Remarks: A = Under the age of 14 years children

B = Use by children includes both active and passive direct contact by children.

¹⁾ = Phenanthrene, Pyrene, Anthracene and Fluoranthene

²⁾ = Benzo[a]pyrene, Benzo[e]pyrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[j]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Benzo[g,h,i]perylene and Indeno[1,2,3-cd]pyrene

* = Toys in the scope of 2009/48/EC

** = "repeated short-term skin contact"
according to REACH Annex XVII No. 50 addition regulation (EC) No. 1272/2013

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 9 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

시험항목 (TEST ITEM)	CAS번호 (CAS NO.)	단위 (UNIT)	분석방법 (TEST METHOD)	검출한계 (MDL)	시험결과 (RESULT)
디부틸프탈레이트 (Dibutyl phthalate, DBP)	84-74-2	mg/kg	With reference to IEC 62321-8 Edition 1.0 : 2017, by solvent extraction and determined by GC/MS	50	N.D.
디에틸헥실프탈레이트 (Di-(2-ethylhexyl) phthalate, DEHP)	117-81-7	mg/kg		50	N.D.
디엔옥틸프탈레이트 (Di-n-octyl phthalate, DNOP)	117-84-0	mg/kg		50	N.D.
디이소노닐프탈레이트 (Diisononyl phthalate, DINP)	28553-12-0 68515-48-0	mg/kg		100	N.D.
디이소데실프탈레이트 (Diisodecyl phthalate, DIDP)	26761-40-0 68515-49-1	mg/kg		100	N.D.
벤질부틸프탈레이트 (Benzyl butyl phthalate, BBP)	85-68-7	mg/kg		50	N.D.
디이소부틸프탈레이트 (Diisobutyl phthalate, DIBP)	84-69-5	mg/kg		50	N.D.
디엔헥실프탈레이트 (Di-n-hexyl phthalate, DNHP)	84-75-3	mg/kg		50	N.D.

Tested by : Hayan Park

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 검출한계 이하)

MDL = Method detection limit (검출한계)

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 10 of 20

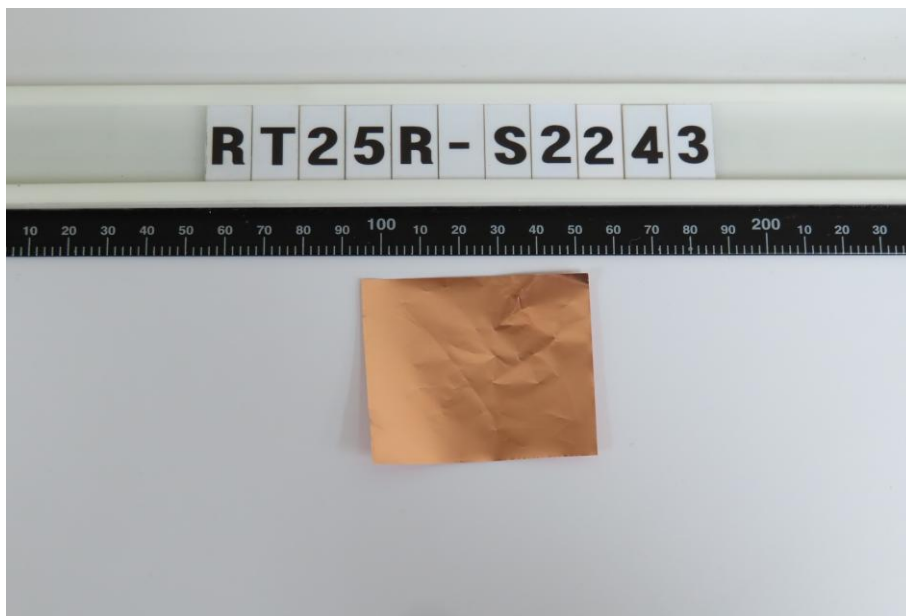
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

* 시료 접수 시 시료 상태 :
(View of sample as received)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

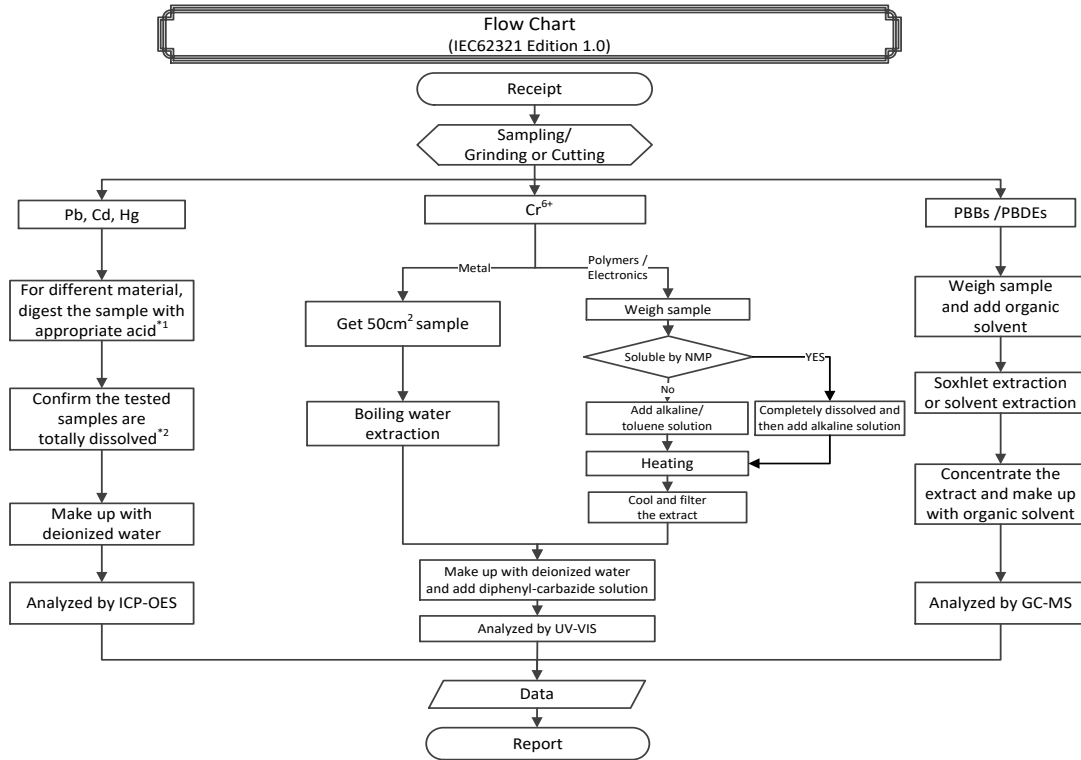
발행면수 (PAGE) : 11 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)



Remarks :

*1 : List of appropriate acid :

Material	Acid added for digestion
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃
Metals	HNO ₃ , HCl, HF
Electronics	HNO ₃ , HCl, H ₂ O ₂ , HBF ₄

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

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 12 of 20

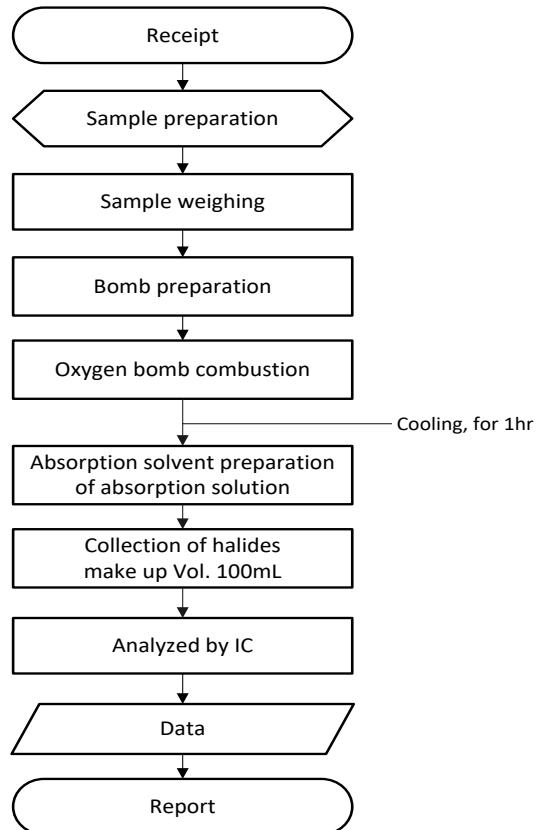
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (EN14582)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

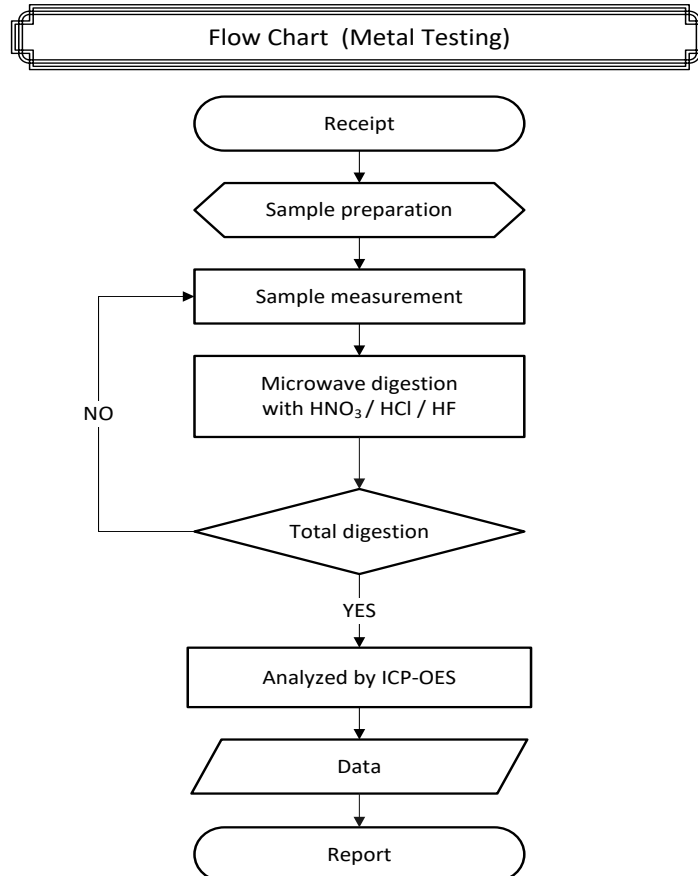
발행면수 (PAGE) : 13 of 20

발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)



** 비고 : 이 샘플은 위의 흐름도에 따른 전처리 방법에 의해 완전용해 되었음.
(The samples were dissolved totally by pre-conditioning method according to above flow chart.)



TEST REPORT (시험 성적서)

발행면수 (PAGE) : 14 of 20

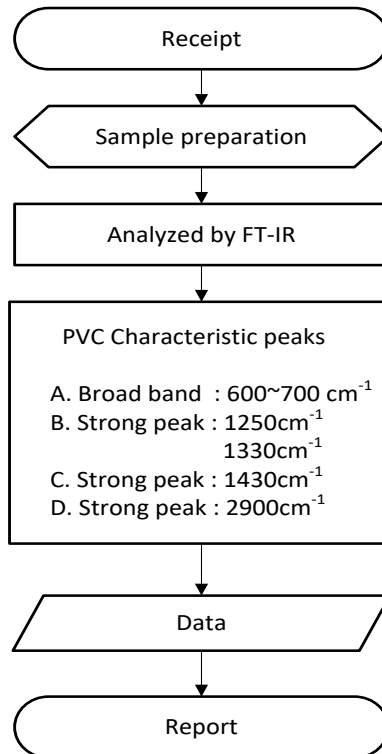
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (PVC)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 15 of 20

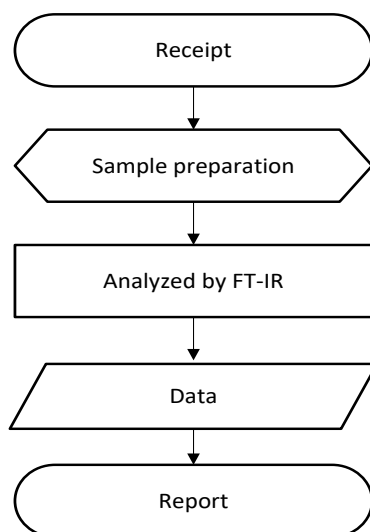
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (Asbestos)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 16 of 20

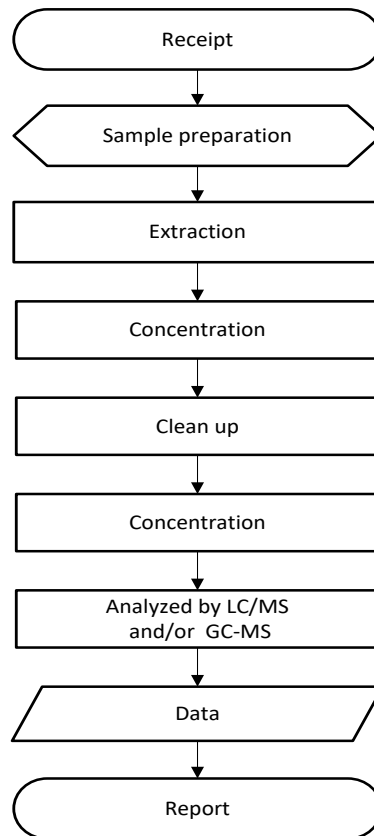
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (HBCDD)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 17 of 20

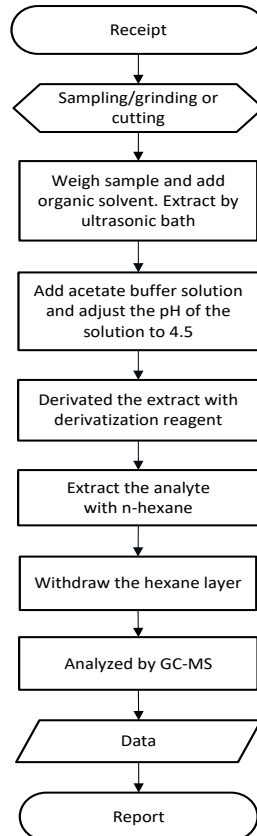
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (Organotin Compounds)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr
Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 18 of 20

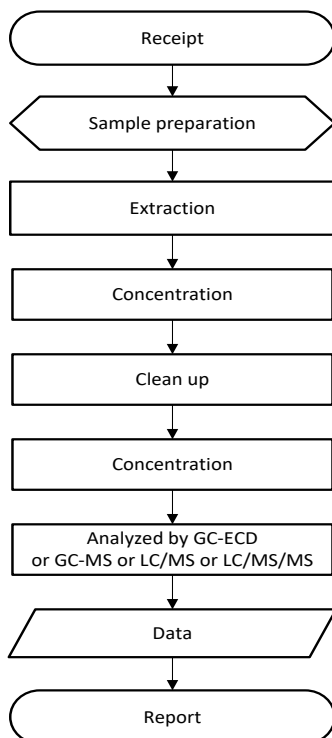
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (EPA 3540C)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 19 of 20

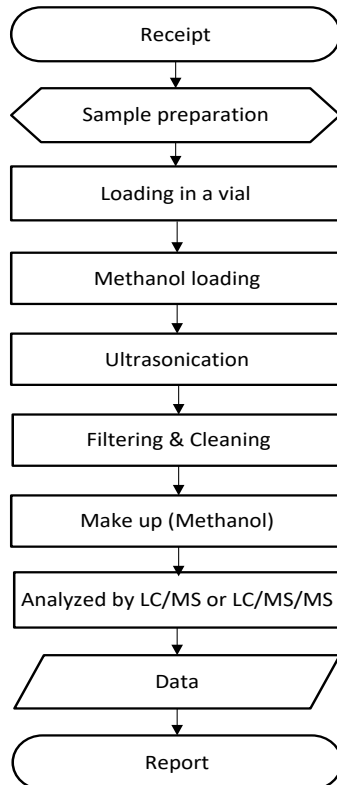
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (PFOS, PFOA)



Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.

TEST REPORT (시험 성적서)

발행면수 (PAGE) : 20 of 20

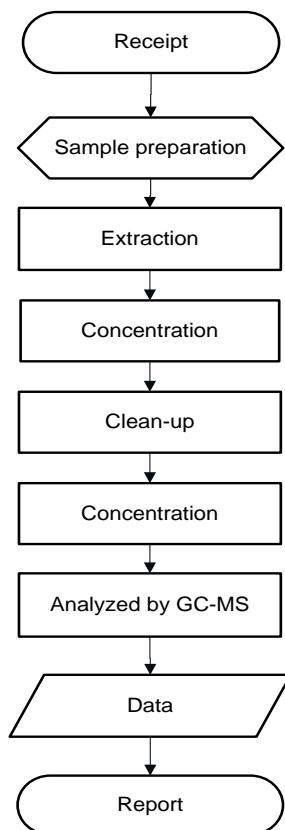
발행일자 (DATE) : 2025. 04. 02.

시험성적서 번호 (REPORT NO.) : RT25R-S2243-K1

시료고유번호 (SAMPLE ID NO.) : RT25R-S2243

시료명 (SAMPLE DESCRIPTION) : Copper-Foil
(Copper-Foil)

Flow Chart (Phthalates)



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

Except where explicitly agreed in writing, all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: <http://www.intertek.com/terms/>. Intertek's responsibility and liability are limited to the terms and conditions of the agreement.

This report is made solely on the basis of your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the sample source. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. You are the only one authorized to permit copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of the report solely at their own risk.

This report shall not be reproduced, except in full.

This report is not related to the scope of Korea Laboratory Accreditation Scheme.

Intertek Testing Services Korea Ltd.

Office: Tel : 031-8069-3708 Fax : 02-3409-0025 Web Site : intertek.co.kr

Seoul Lab. Address : 7, Ahasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea



※ You can verify the forgery and authenticity by the barcode at the end of this document.