



시험성적서 번호 F690101/LF-CTSAYAA24-02553K

발행일: 2024. 01. 19 페이지: 1/ 4

고 객 명 : (주) 대호특수강
주 소 : 충청북도 충주시 충주산단1로 95



고객으로부터 제공받은 시료에 대한 정보는 다음과 같습니다.

SGS 파일 번호 : AYAA24-02553K
제 품 명 : SWCH45K(F)
아 이 템 번 호 : N/A
시료 접수 날짜 : 2024. 01. 12
시험 시행 기간 : 2024. 01. 12 ~ 2024. 01. 19
시 험 결 과 : 자세한 결과는 다음 장을 참조하세요.

 Billy Oh

박 승 남

오 동 진

기술책임자/ 한국에스지에스㈜

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 instructions, 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).

CQP-7081508 (01)

SGS Korea Co., Ltd.

322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117
t +82 (0)31 4608 000 f +82 (0)31 4608 059 <http://www.sgsgroup.kr>

Member of the SGS Group (Société Générale de Surveillance)



시험성적서 번호 F690101/LF-CTSAYAA24-02553K

발행일: 2024. 01. 19 페이지: 2 / 4

시 료 번 호 : AYAA24-02553K.001
시 료 명 : SWCH45K(F)
아 이 템 번 호 : N/A
재 질 : N/A

Heavy Metals

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	0.5	불검출
Lead (Pb)	mg/kg	With reference to IEC 62321-5 : 2013, by ICP-OES	5	불검출
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 : 2013+AMD1:2017CSV, by ICP-OES	2	불검출
Hexavalent Chromium (Cr VI)*	µg/cm²	With reference to IEC 62321-7-1 : 2015, by UV-Vis	0.1	불검출

Total Metals

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Antimony (Sb)	mg/kg	With reference to EPA 3052 : 1996, EPA 6010D : 2018, by ICP-OES	10	불검출

Flame Retardants-PBBs/PBDEs

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출

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 instructions, 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).



시험성적서 번호 F690101/LF-CTSAYAA24-02553K

발행일: 2024. 01. 19 페이지: 3/ 4

시 료 번 호 : AYAA24-02553K.001
시 료 명 : SWCH45K(F)
아 이 템 번 호 : N/A
재 질 : N/A

Flame Retardants-PBBs/PBDEs

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	5	불검출

Phthalates

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	불검출
Di-butyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	불검출
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	불검출
Di-isobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	불검출

Flame Retardants

분 석 항 목	단 위	시 험 방 법	검출한계	결 과
Hexabromocyclododecane (HBCDD)	mg/kg	With reference to USEPA 3540 C, by LC/MS	5	불검출

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 instructions, 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).



시험성적서 번호 F690101/LF-CTSAYAA24-02553K

발행일: 2024. 01. 19 페이지: 4/ 4

- 주) (1) 불검출 : 검출한계 미만
 (2) * = a. 검출 값이 0.13 $\mu\text{g}/\text{cm}^2$ 이상이면 Positive로 결과 값 입력.
 b. 검출 값이 0.10 $\mu\text{g}/\text{cm}^2$ 이하이면 Negative로 결과 값 불검출로 입력.
 c. 검출 값이 0.10 $\mu\text{g}/\text{cm}^2$ 과 0.13 $\mu\text{g}/\text{cm}^2$ 사이의 값이면 Inconclusive로 의심이 됨.
 (3회 재확인 시험을 진행 해야함)
 (3) 이 시험 결과는 의뢰자가 제시한 시료 및 시료명에만 한정됩니다.
 이 시험 성적서는 KOLAS 인정과 관련 없습니다.



*** 끝 ***

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 instructions, 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).