

[CERTIFICATE]

CPSFLEX® & CPSFIX®

Certificate Title: RoHS /RoHS2 (6대 유해물질 TEST REPORT)		Page	1/2
528, Maehak-ri, Jeonggwan-Myeon, Gijang-gun, Busan, Korea 부산광역시 기장군 정관면 매학리 528		씨 피 시스템 (주) CP SYSTEM CO.,LTD	
Domestic Line (국내영업부): Tel/ 051-868-4356 Oversea Line (해외영업부): Tel/ 82-51-526-4393		Fax/ 051-868-4356 Fax/ 82-51-524-4358	www.cpsystem.co.kr E-mail: info@cpsystem.kr
Production Item	CPS CHAIN / CPSFIX-Series	JUDGMENT (종합 판정)	RESULT: Not Detected
Prepared by	SUNG IN.LEE	DATE (날 짜)	2017.12.12

The Original
(원 본)



Test Report No. F690101/LF-CTSAYGU17-08977

Issued Date : 2017. 12. 07

Page 2 of 6

Sample No. : AYGU17-08977.001
 Sample Description : PA6 G33
 Item No./Part No. : N/A
 Materials : N/A

Heavy Metals

Test items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5:2013(Determination of Cadmium by ICP-OES)	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321-5:2013(Determination of Lead by ICP-OES)	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013(Determination of Mercury by ICP-OES)	1	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	With reference to IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and/or with reference to IEC 62321-5:2013, determination of Chromium by ICP-OES	8	N.D.

Flame Retardants-PBBs/PBDEs

Test items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	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://data.sgs.com/terms-and-conditions.aspx> and, for electronic format documents, subject to terms and conditions for Electronic Documents at www.sgs.com/terms-and-conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein 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 constitute parties to a transaction from asserting 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).

F058 Version 9

SGS Korea Co., Ltd. | 305, 228A/C, 36 Daejeong-gil, Secheon-myeon, Gyeongsang-nam-do, Gyeongsang, Korea 51080
 T +82 (0)52 310 0001 F +82 (0)52 310 0005 <http://www.sgs.com>

Member of the SGS Group (Enables Commerce to Thrive)

[CERTIFICATE]

CPSFLEX® & CPSFIX®

Certificate Title: RoHS /RoHS2 (6대 유해물질 TEST REPORT)		Page	2/2
528, Maehak-ri, Jeonggwan-Myeon, Gijang-gun, Busan, Korea 부산광역시 기장군 정관면 매학리 528		씨 피 시스템 (주) CP SYSTEM CO.,LTD	
Domestic Line (국내영업부): Tel/ 051-868-4356 Oversea Line (해외영업부): Tel/ 82-51-526-4393		Fax/ 051-868-4356 Fax/ 82-51-524-4358	www.cpsystem.co.kr E-mail: info@cpsystem.kr
Production Item	CPS CHAIN / CPSFIX-Series	JUDGMENT (종합 판정)	RESULT: Not Detected
Prepared by	SUNG IN.LEE	DATE (날 짜)	2017.12.12

The Original
(원 본)



Test Report No. F690101/LF-CTSAYGU17-08977

Issued Date: 2017. 12. 07

Page 3 of 6

Sample No. : AYGU17-08977.001
 Sample Description : PA6 G33
 Item No./Part No. : N/A
 Materials : N/A

Flame Retardants-PBBs/PBDEs

Test Item	Unit	Test Method	MDL	Results
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (Determination of PBBs and PBDEs by GC-MS)	5	N.D.

Phthalates

Test Item	Unit	Test Method	MDL	Results
Di(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8:2017, GC/MS	50	N.D.
Dibutyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8:2017, GC/MS	50	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8:2017, GC/MS	50	N.D.
Diisobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8:2017, GC/MS	50	N.D.

NOTE: (1) N.D. = Not detected.(<MDL)
 (2) mg/kg = ppm
 (3) MDL = Method Detection Limit
 (4) - = No regulation
 (5) Negative = Undetectable / Positive = Detectable
 (6) * = Qualitative analysis (No Unit)
 (7) * = a. The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.
 b. If the Chromium (Cr) content is greater than the MDL of Hexavalent Chromium (Cr(VI)), confirmation test of Hexavalent Chromium (Cr(VI)) is required.

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 www.sgs.com/en/e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein 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 constitute 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).

FD95 Version 0

SGS Korea Co., Ltd. | 302, GSAK, 88 Samsung-gil, Jachonmyeong, Goshan-eil, Gyeongsang, Korea 50969
 T +82 (0)52 310 8800 F +82 (0)52 310 8808 <http://www.sgs.com/kr>

Member of the SGS Group (Société Générale de Surveillance)