

# [ CERTIFICATE ]

# CPSFLEX® & CPSFIX®

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

The Original  
(원 본)



**Test Report No. F690101/LF-CTSAYGU17-08979**

Issued Date : 2017. 12. 07

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Sample No. : AYGU17-08979.001  
 Sample Description : PA6  
 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)	2	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.

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# CPSFLEX<sup>®</sup> & CPSFIX<sup>®</sup>

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528, Maehak-ri, Jeonggwan-Myeon, Gijang-gun, Busan, Korea 부산광역시 기장군 정관면 매학리 528		<b>씨 피 시스템 (주)</b> <b>CP SYSTEM CO.,LTD</b>
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Production Item	CPSFIX-FCG 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-CTSAYGU17-08979

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Sample No. : AYGU17-08979.001  
Sample Description : PA6  
Item No./Part No. : N/A  
Materials : N/A

### Flama 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.
Di-butyl 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.
Di-isobutyl 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.

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