



# TEST REPORT

Applicant : KOLONPLASTICS, INC.  
Address : #1018, Ungmyoung-dong, Gimcheon-si,  
Gyeongsangbuk-do, 740-180 Korea

Page: 1 of 4

Report No. RT10R-U0809-E

Date: Apr. 21, 2010

---

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : KOPA  
Name of Material : PA6  
Sample ID No. : RT10R-U0809  
Item No. : KN1322V0  
Manufacturer/Vender : KOLONPLASTICS, INC.

Sample received : Apr. 16, 2010  
Testing Date : Apr. 16, 2010 ~ Apr. 21, 2010  
Testing Laboratory : Intertek Testing Center  
Testing Environment : Temperature : ( 24 ± 2 ) °C, Humidity : ( 60 ± 5 ) % R.H.

Test Method(s) : Please see the following page(s).  
Test Result(s) : Please see the following page(s).

- \* Note 1 : The test results presented in this report relate only to the object tested.
- \* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.
- \* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,

Authorized by,

---

E.Y.Lee / Lab. Technical Manager

---

H.W.Yoo / Lab. General Manager

This Test Report is issued by the Company subject to its Terms and Conditions of Business printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This Test Report shall not be reproduced, except in full, without prior written consent of the Company.

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9500 Fax : 02-3409-0026 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : [www.Intertek.co.kr](http://www.Intertek.co.kr)  
Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea  
Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulsan 689-865 Korea



# TEST REPORT

Page: 2 of 4  
Date: Apr. 21, 2010

Report No. RT10R-U0809-E

Sample ID No. : RT10R-U0809

Sample Description : KOPA

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321 Edition 1.0:2008, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	N.D.
Mercury (Hg)	mg/kg		2	N.D.
Hexavalent Chromium (Cr <sup>6+</sup> ) (For non-metal)	mg/kg	With reference to IEC 62321 Edition 1.0:2008, by alkaline digestion and determined by UV-VIS Spectrophotometer	1	N.D.
Polybrominated Biphenyl (PBBs)				
Monobromobiphenyl	mg/kg	With reference to IEC 62321 Edition 1.0:2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromobiphenyl	mg/kg		5	N.D.
Tribromobiphenyl	mg/kg		5	N.D.
Tetrabromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenyl	mg/kg		5	N.D.
Hexabromobiphenyl	mg/kg		5	N.D.
Heptabromobiphenyl	mg/kg		5	N.D.
Octabromobiphenyl	mg/kg		5	N.D.
Nonabromobiphenyl	mg/kg		5	N.D.
Decabromobiphenyl	mg/kg		5	N.D.
Polybrominated Diphenyl Ether (PBDEs)				
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321 Edition 1.0:2008, by solvent extraction and determined by GC/MS	5	N.D.
Dibromodiphenyl ether	mg/kg		5	N.D.
Tribromodiphenyl ether	mg/kg		5	N.D.
Tetrabromodiphenyl ether	mg/kg		5	N.D.
Pentabromodiphenyl ether	mg/kg		5	N.D.
Hexabromodiphenyl ether	mg/kg		5	N.D.
Heptabromodiphenyl ether	mg/kg		5	N.D.
Octabromodiphenyl ether	mg/kg		5	N.D.
Nonabromodiphenyl ether	mg/kg		5	N.D.
Decabromodiphenyl ether	mg/kg		5	N.D.

Tested by : YK Cho, HS Kim, WH Park

Notes : mg/kg = ppm = parts per million  
< = Less than  
N.D. = Not detected ( <MDL )  
MDL = Method detection limit

This Test Report is issued by the Company subject to its Terms and Conditions of Business printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This Test Report shall not be reproduced, except in full, without prior written consent of the Company.

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9500 Fax : 02-3409-0026 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : [www.Intertek.co.kr](http://www.Intertek.co.kr)

Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea

Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulsan-Gun, Ulsan 689-865 Korea

## TEST REPORT

Report No. RT10R-U0809-E

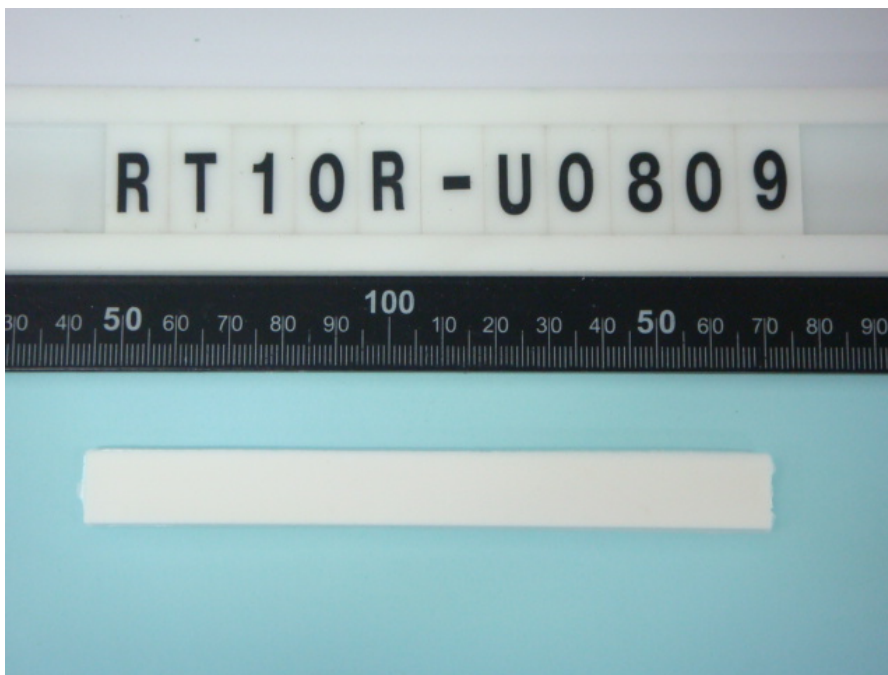
Page: 3 of 4

Date: Apr. 21, 2010

Sample ID No. : RT10R-U0809

Sample Description : KOPA

\* View of sample as received;-



This Test Report is issued by the Company subject to its Terms and Conditions of Business printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This Test Report shall not be reproduced, except in full, without prior written consent of the Company.

**Intertek Testing Services Korea Ltd.**

Seoul Office: Tel : 02-6090-9500 Fax : 02-3409-0026 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : [www.Intertek.co.kr](http://www.Intertek.co.kr)

Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea

Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulju-Gun, Ulsan 689-865 Korea



# TEST REPORT

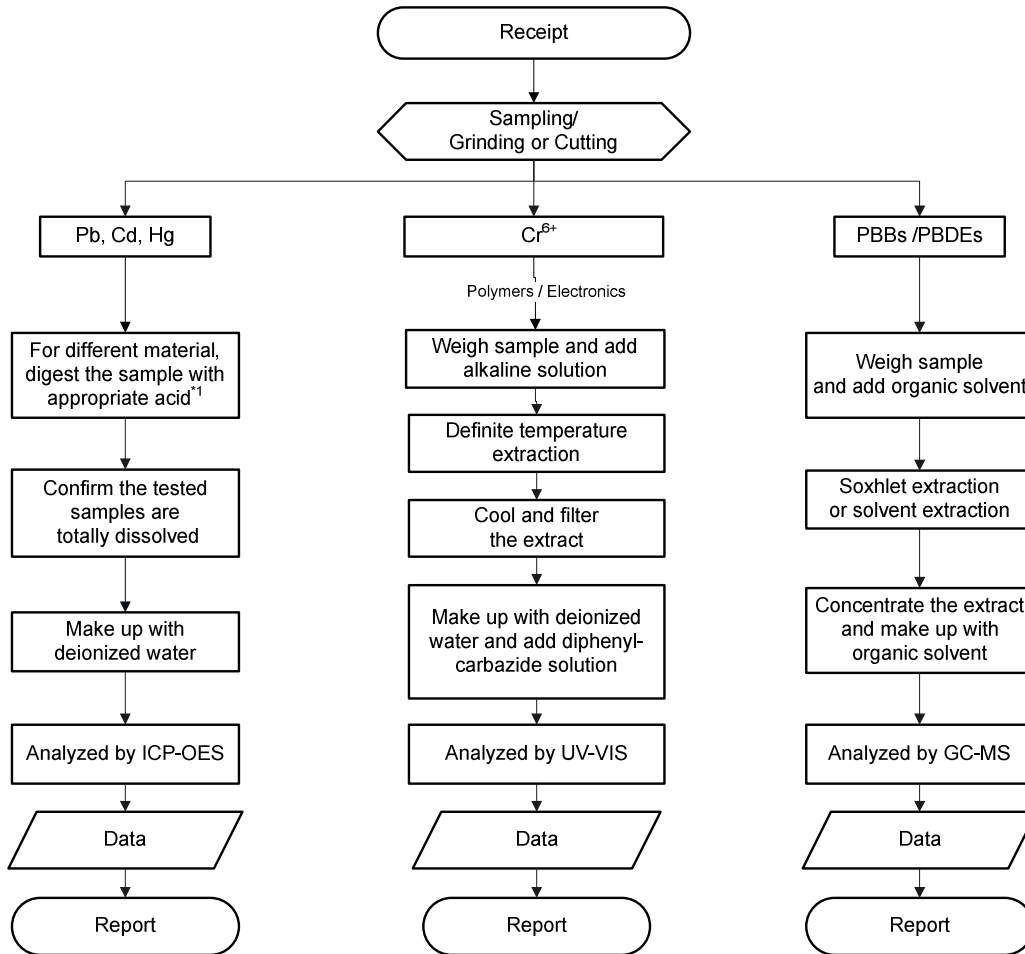
Report No. RT10R-U0809-E

Page: 4 of 4  
Date: Apr. 21, 2010

Sample ID No. : RT10R-U0809

Sample Description : KOPA

Flow Chart  
(IEC 62321 Edition 1.0 : 2008)



Remarks :

\*1 : List of appropriate acid :

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

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

This Test Report is issued by the Company subject to its Terms and Conditions of Business printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This Test Report shall not be reproduced, except in full, without prior written consent of the Company.

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9500 Fax : 02-3409-0026 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : [www.Intertek.co.kr](http://www.Intertek.co.kr)

Seoul Lab. Address : 1/F, A-ju Digital Tower, #284-56, Seongsu 2-ga, Seongdong-Gu, Seoul, 133-833 Korea

Ulsan Lab. Address : #340-2, Yongam-Ri, Chongryang-Myun, Ulsan 689-865 Korea