

TEST REPORT

KOTITI No. | 8224-1401-108158

Applicant | Avery Dennison Korea

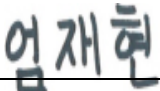
Date In | Dec 16, 2024

Date Out | Jan 08, 2025

Issue No	7533427231
Sample Description	CL OPP
Sample Quantity	One (1) Sample(s)
Buyer	N/S
Item Number	CL OPP
Material	Film
Testing Period	Dec 16, 2024 ~ Jan 08, 2025
Test Result	For further details, please refer to the following page(s).

*N/S : Not Submitted, N.A. : Not Applicable, N.D. : Not Detected [< RL(Report Limit)]

*Negative : Not Detected, Positive : Detected

Affirmation	Prepared by Name : Jae Hyun Um 	Technical Manager Name : Gun Young Ryu 
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KOTITI Testing & Research Institute



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- The test results contained in this report are limited to results on the sample(s) that is provided by client and are not necessarily indicative or representative of the qualities of the lot from which the sample(s) was taken or of all products.
- Further use of the results of this report is prohibited unless allowed under a separate agreement set forth in an official document that is established between the client identified on this letter and the KOTITI Testing & Research Institute.
- The test result in this report is not related to Accreditation of KOLAS.
- You can verify the authenticity by the QR code at the bottom right side of the issued report or access <http://cs.kotiti-global.com> and enter the test report number.



Tested Sample List			
Sample No.	Sample Description	Item No.	Material
1	CL OPP	CL OPP	Film

RoHS, Unit : mg/kg
(EU Directive 2011/65/EU, 2015/863/EU)

Test Conducted	Test Method	RL	Test Results
1			
Lead (Pb)	IEC 62321-5:2013 (Acid digestion and determined by ICP-OES)	5	N.D.
Cadmium (Cd)		2	N.D.
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV (Acid digestion and determined by ICP-OES)	1	N.D.
Hexavalent Chromium (Cr ⁶⁺)	IEC 62321-7-2:2017 (Solvent extraction and determined by UV-VIS)	8	N.D.

*** Polybrominated Biphenyls (PBBs)**

Bromobiphenyl	IEC 62321-6:2015 (Solvent extraction and determined by GC-MS)	5	N.D.
Dibromobiphenyl		5	N.D.
Tribromobiphenyl		5	N.D.
Tetrabromobiphenyl		5	N.D.
Pentabromobiphenyl		5	N.D.
Hexabromobiphenyl		5	N.D.
Heptabromobiphenyl		5	N.D.
Octabromobiphenyl		5	N.D.
Nonabromobiphenyl		5	N.D.
Decabromobiphenyl		5	N.D.
Sum of PBBs		–	N.D.

*** Polybrominated Diphenyl Ethers (PBDEs)**

Bromodiphenyl ether	IEC 62321-6:2015 (Solvent extraction and determined by GC-MS)	5	N.D.
Dibromodiphenyl ether		5	N.D.
Tribromodiphenyl ether		5	N.D.
Tetrabromodiphenyl ether		5	N.D.
Pentabromodiphenyl ether		5	N.D.
Hexabromodiphenyl ether		5	N.D.
Heptabromodiphenyl ether		5	N.D.
Octabromodiphenyl ether		5	N.D.
Nonabromodiphenyl ether		5	N.D.
Decabromodiphenyl ether		5	N.D.
Sum of PBDEs		–	N.D.

Phthalates, Unit : mg/kg
(EU Directive 2011/65/EU, 2015/863/EU)

Test Conducted	Test Method	RL	Test Results
1			
di-n-butyl phthalate (DBP)	IEC 62321-8:2017 (Solvent extraction and determined by GC-MS or LC-MS)	50	N.D.
di(ethylhexyl) phthalate (DEHP)		50	N.D.
butyl benzyl phthalate (BBP)		50	N.D.
diisobutyl phthalate (DIBP)		50	N.D.
di-isononyl phthalate (DINP)		50	N.D.
Di-n-hexyl Phthalate (DnHP)		50	N.D.
di-iso-decyl phthalate (DIDP)		50	N.D.
Di-n-octyl Phthalate (DNOP)		50	N.D.

Halogen, Unit : mg/kg

Test Conducted	Test Method	RL	Test Results
1			
Bromine (Br)	IEC 62321-3-2:2020 & KS M 0180:2009 determined by C-IC	30	N.D.
Chlorine (Cl)		30	N.D.
Fluorine (F)		30	N.D.

Sulfur (S), Unit : mg/kg

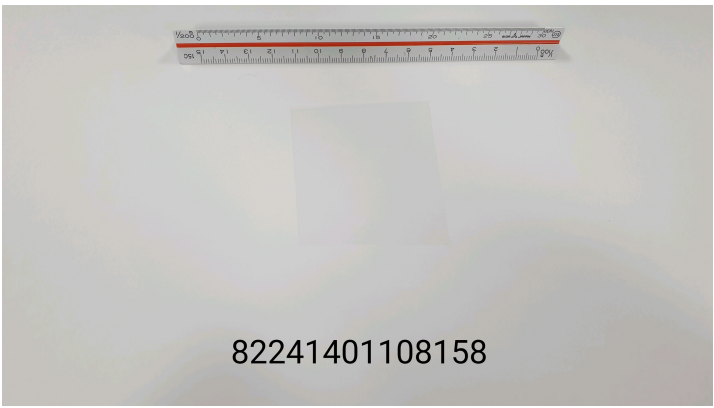
Test Conducted	Test Method	RL	Test Results
1			
Sulfur (S)	IEC 62321-3-2:2020 & KS M 0180:2009 determined by C-IC	30	N.D.

Heavy metal, Unit : mg/kg

Test Conducted	Test Method	RL	Test Results
1			
Antimony (Sb)	Reference to EPA 3052:1996 determined by ICP-OES, AAS	5	N.D.
Beryllium (Be)		5	N.D.

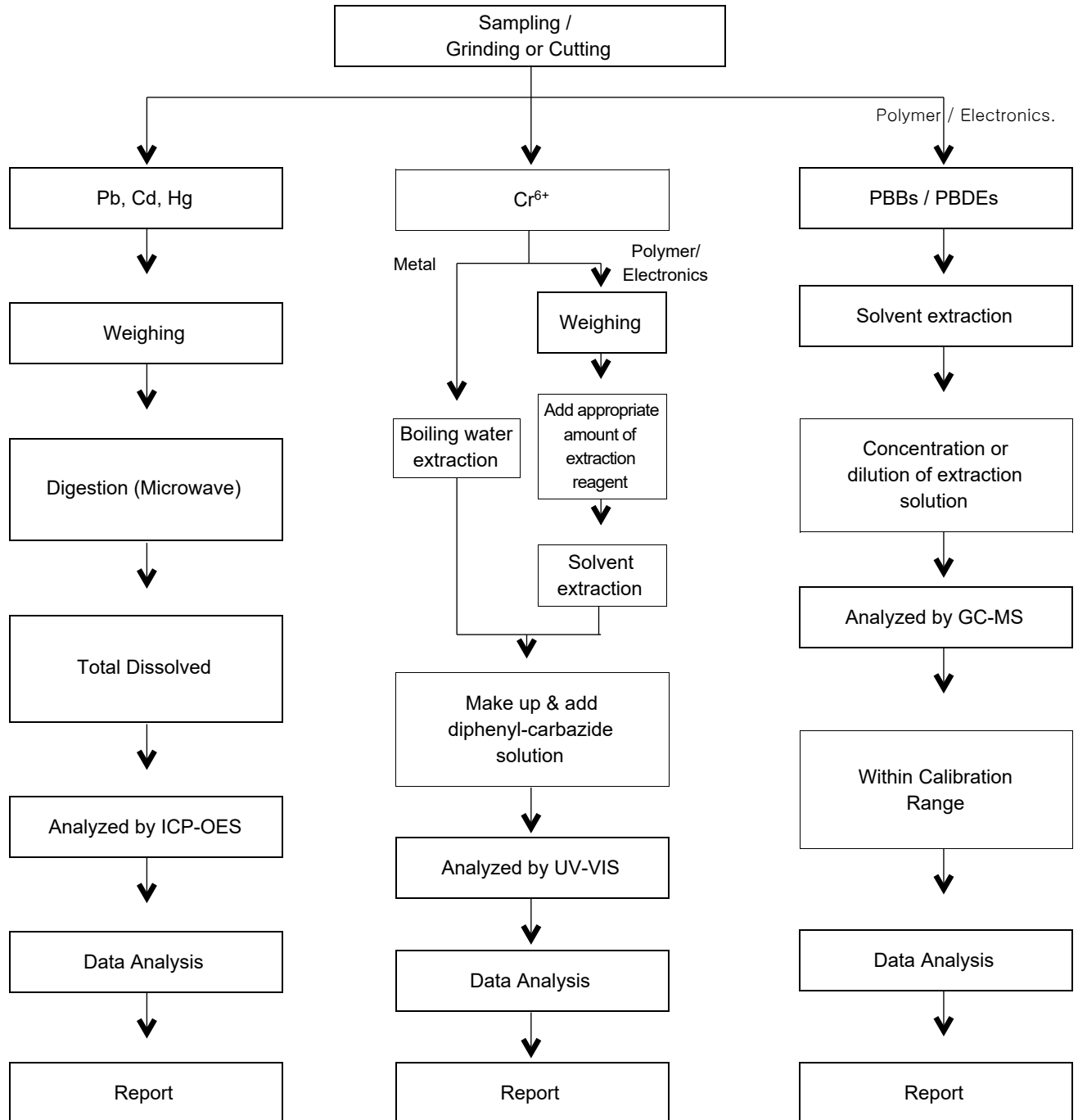
Photo of the submitted sample(s)

Sample No.1



Flow Chart

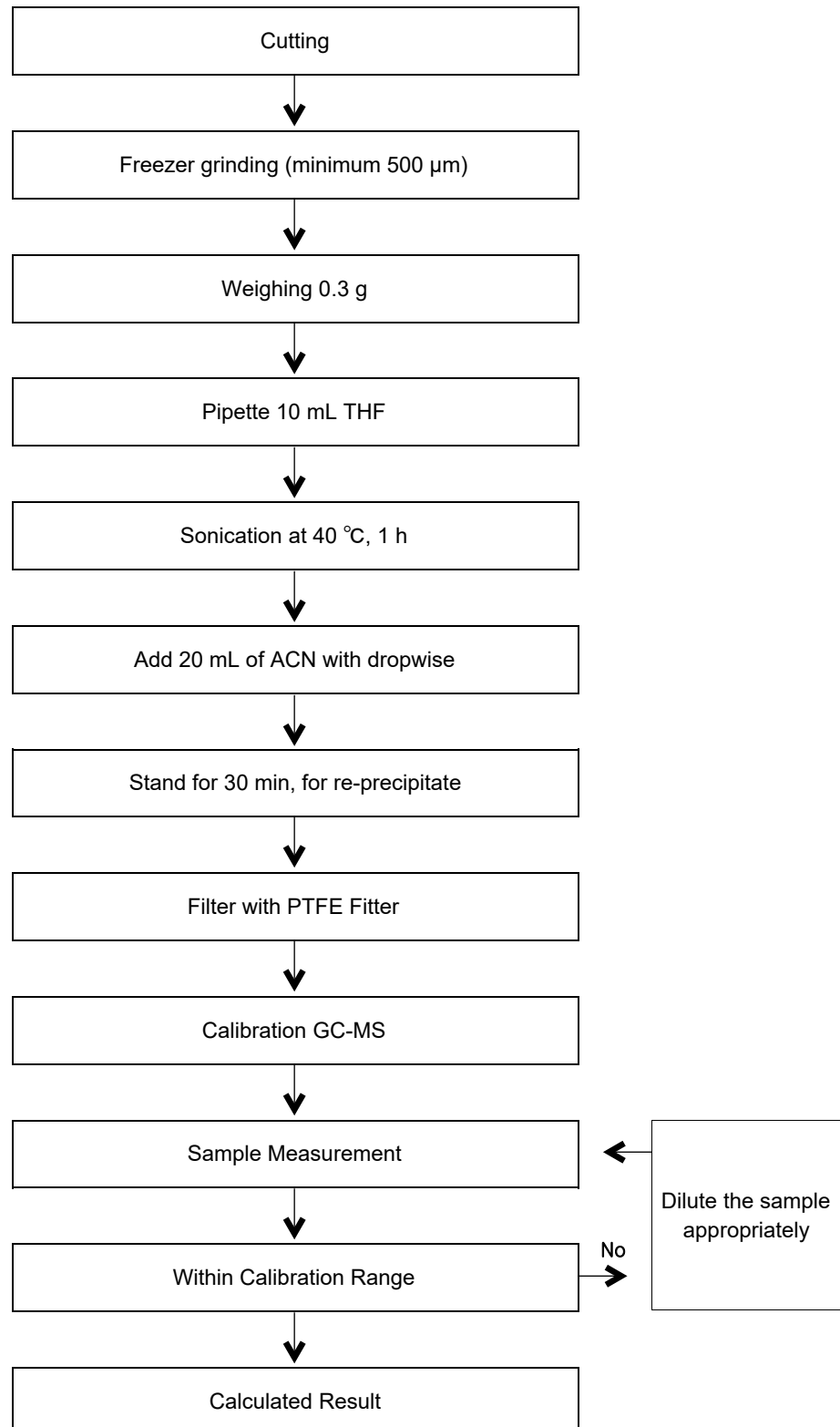
RoHS(Pb, Hg, Cd, Cr⁶⁺, PBBs/PBDEs)

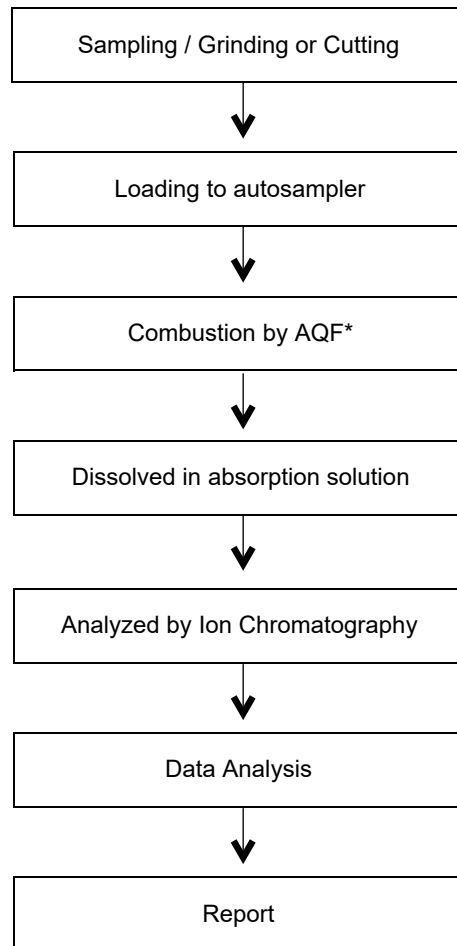


Material	Digestion Acid
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.
Metals	HNO ₃ , HCl
Electronics	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.

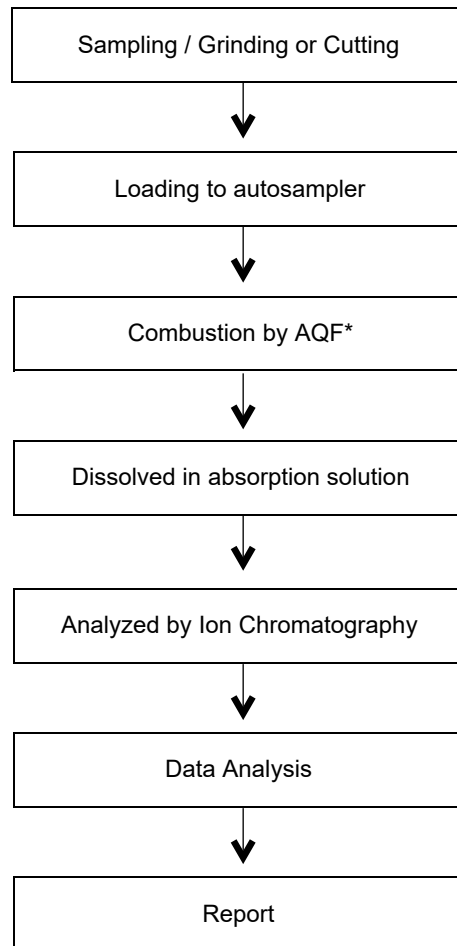
 Flow Chart

Phthalates



Flow Chart**Halogen**

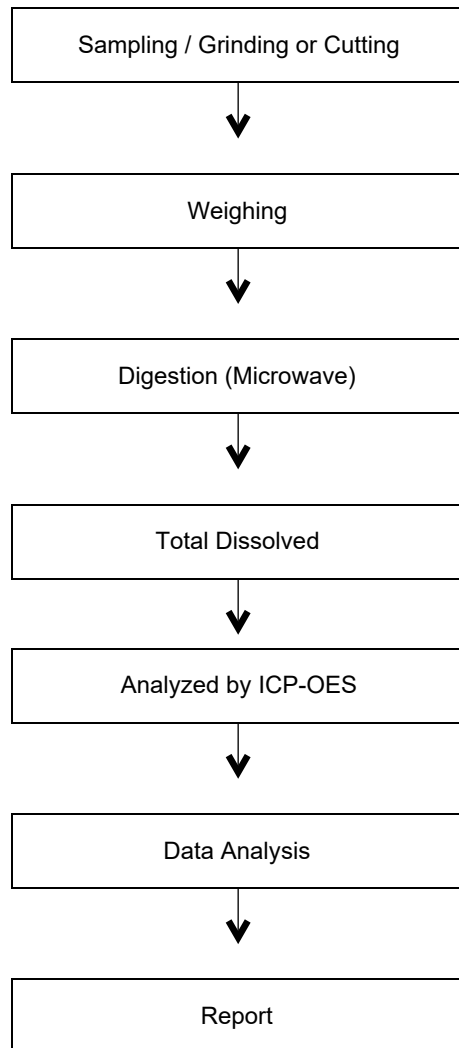
*AQF : Automated Quick Furnace

 Flow Chart**Sulfur**

*AQF : Automated Quick Furnace

 Flow Chart

Heavy metal



Material	Digestion Acid
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.
Metals	HNO ₃ , HCl
Electronics	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.