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TEST REPORT

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Report No : TAH-000286

Receipt Date : Jan.16.2017

Customer : Hyuk-Jae,Kweon

Test Date : Jan.26.2017

DongKwang Aluminum Co., Ltd.

#886 Hakun-Ri, Yangchon-Myeon, Gimpo-Si, Gyeonggi-Do, Korea

Sample : Metallic Specimen (ALDC 12.1)

Testing Date : Jan.17.2017 ~ Jan.26.2017

Testing Environment : Temperature (20 ± 5) °C, Relative humidity (40 ± 20) %

Test method : Refer to following pages

Test result : Refer to following pages

Attachment : Flow chart and Sample pictures

USAGE : QUALITY CONTROL

- NOTE : 1. The test results on this test report are only limited to the samples and sample names provided by the customer and KTR does not guarantee the quality of all products of the customer, and you can confirm the authenticity of the test report online (www.ktr.or.kr) or by using the QR code.
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Jan.26.2017

Korea Testing & Research Institute

President *Byun, Jong-Rip*



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Sample : Metallic Specimen (ALDC 12.1)

TEST RESULT

Test Items	Unit	Sample	Results	MDL	Test Methods
Pb	mg/kg	-	Not Detected	10	IEC 62321-5 Ed.1.0 : 2013 (AAS)
Cd	mg/kg	-	Not Detected	1	IEC 62321-5 Ed.1.0 : 2013 (AAS)
Hg	mg/kg	-	Not Detected	1	IEC 62321-4 Ed.1.0 : 2013 (AAS)
Cr(VI)	$\mu\text{g}/\text{cm}^2$	-	Negative	-	IEC 62321-7-1 Ed.1.0 : 2015 (UV/Vis)
Total-PBBs	mg/kg	-	Not Detected	-	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Mono-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Di-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Tri-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Tetra-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Penta-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Hexa-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Hepta-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Octa-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Nona-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Deca-BB	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Total-PBDEs	mg/kg	-	Not Detected	-	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Mono-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Di-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Tri-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Tetra-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Penta-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Hexa-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Hepta-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Octa-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Nona-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)
Deca-BDE	mg/kg	-	Not Detected	10	IEC 62321-6 Ed. 1.0 : 2015 (GC/MS)

Notes : mg/kg = ppm (parts per million)

N.D. = Not detected (<MDL)

MDL = Method detection limit

* Cr(VI): Negative (below $0.10 \mu\text{g}/\text{cm}^2$),
 Inconclusive ($0.10 \mu\text{g}/\text{cm}^2 \sim 0.13 \mu\text{g}/\text{cm}^2$),
 Positive (over $0.13 \mu\text{g}/\text{cm}^2$)



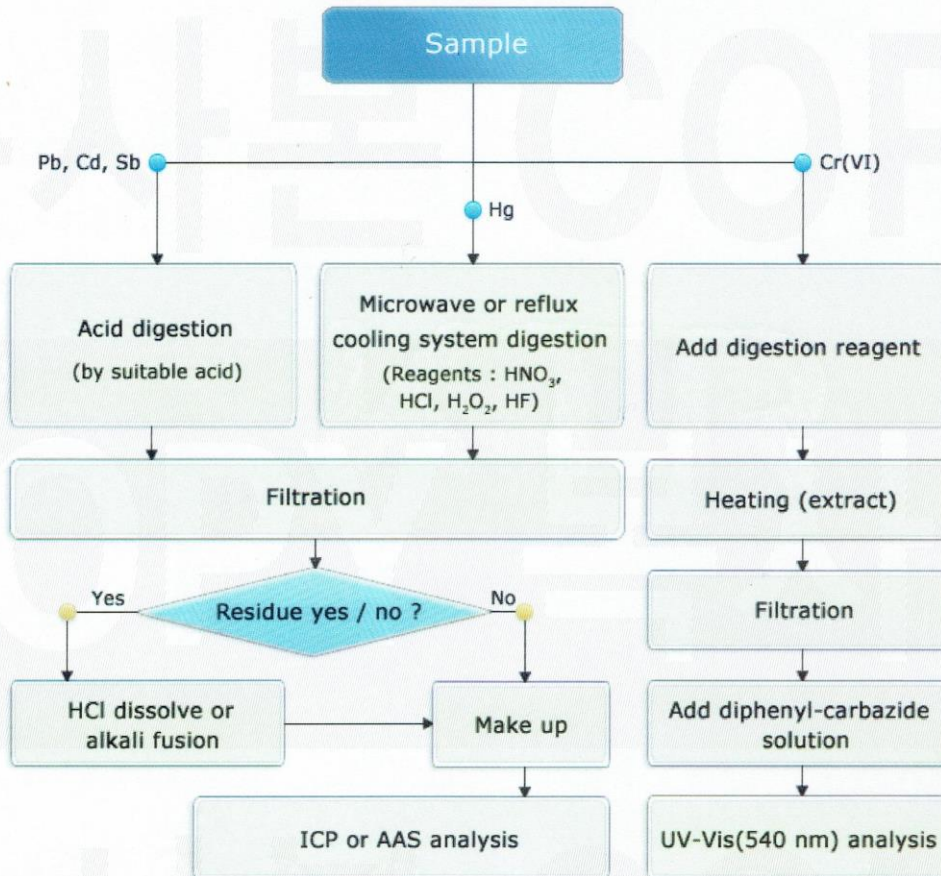
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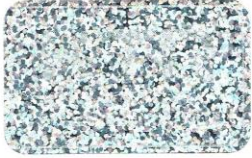
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Sample : Metallic Specimen (ALDC 12.1)

Pb, Cd, Hg, Cr(VI) : Tested by Shin Jonghun (Tel : 02-2092-3782)

Flow chart of heavy metals analysis





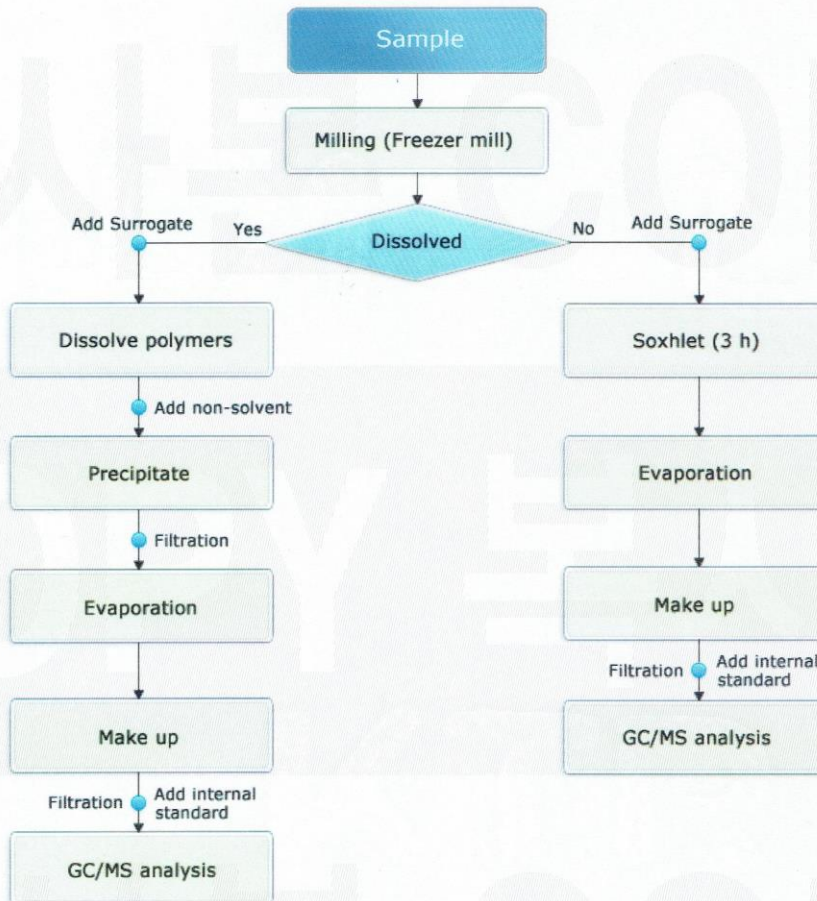
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Sample : Metallic Specimen (ALDC 12.1)

PBBs, PBDEs : Tested by Shin Jonghun (Tel : 02-2092-3782)

Flow chart of PBBs and PBDEs analysis





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Sample



- End of Report -