

Messrs. Nantong Fujitsu Microelectronics Co., Ltd.

Jan. 21, 2010

Hitachi Chemical
Yamazaki Works

Analytical report for the Die-bonding material

This report contains analytical data for the concentration of cadmium (Cd), lead (Pb), mercury (Hg), hexavalent chromium (Cr(VI)), polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in our die-bonding material.

1. Name of product :

EN - 4 0 4 0

2. Method of analysis

Cd, Pb, Hg : Inductive Coupled Plasma-Optical Emission Spectroscopy(ICP-OES)

Cr(VI) : Diphenylcarbazides absorptiometry

PBBs, PBDEs : Gas chromatograph / Mass spectrometry (GC-MS)

3. Results

Test report by the third party is appended. The concentration of all the elements and substances are less than detection limitations of the instrument.

Controlled Division: SCS Committee of Yamazaki Works

Name of responsible person: Koei Fujita



Signature

Date: Jan. 21, 2010

Test Report**Applicant**

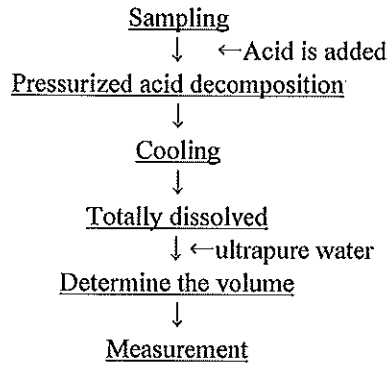
Yamazaki Works Hitachi Chemical Co.,Ltd
13-1,Higashi-cho 4-chome,Hitachi-shi
Ibaraki,317-8555 Japan

Hitachi Works,

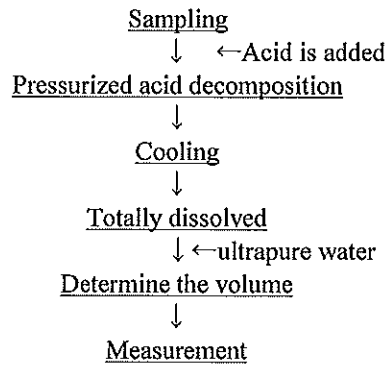
Hitachi Chemical Techno Service Co.,Ltd
13-1,Higashi-cho 4-chome,Hitachi-shi Ibaraki,
317-8555 Japan
TEL+81-294-23-8013 / FAX+81-294-23-9108

Test name : Analysis of Cd,Pb,Hg,Cr(VI)and PBB,PBDE				
Sample name : EN-4040(Produced Country:Japan, Produced Factory: Yamazaki Works, Lot:H09Y099)				
Sample Description : Adhesive				
Date of test : From 21st December 2009 to 15th January 2010				
Test Results				
Type of Test	Result(lower limit)	Method		
		Pretreatment	Method of test	
Cadmium (Cd)	N.D. (<5mg/kg)	Microwave decomposition [Totally dissolved]	ICP-MS	
Lead (Pb)	N.D. (<5mg/kg)	Microwave decomposition [Totally dissolved]	ICP-MS	
Mercury (Hg)	N.D. (<5mg/kg)	Microwave decomposition	ICP-MS	
Hexavalent chromium (Cr(VI))	N.D. (<0.5mg/kg)	Elution method	Diphenylcarbazides absorptiometry	
Polybrominated biphenyls (PBBs)	N.D. (<5mg/kg)	Solvent extraction	GC/MS	
Polybrominated diphenyl ethers (PBDEs)	N.D. (<5mg/kg)	Solvent extraction	GC/MS	
N.D.=Not Detected(Less than Quantitive lower Limit) Based on IEC62321 111/95/CDV				
Name of the person who measured :				
Analytical Technology Division, Hitachi Works, Hitachi Chemical Techno Service Co.,Ltd				
<i>SHUICHI TAKEUCHI</i>				
<i>HIDEMI NAKAYAMA</i>				
<i>HIROKO SHIMOMURA</i>				
Remarks : Sample Mass Cd,Pb,Hg... 0.1g ,Cr(VI)... 3g ,PBBs,PBDEs... 0.3g				
: The test results are related only with the above-mentioned test items (Sample name, Type of Test , etc.).				
The test report shall not be reproduced except in full, without written approval of the laboratory.				
Date of publication : 15th January 2010				
Approved by HIROFUMI TAKAHASHI (Manager of Analytical Technology Division)				
Signature <u>高橋 宏文</u>				

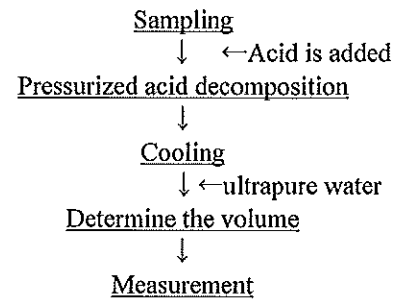
Pretreatment method of the Cadmium
 Pressurized acid decomposition
 (microwave decomposition method)



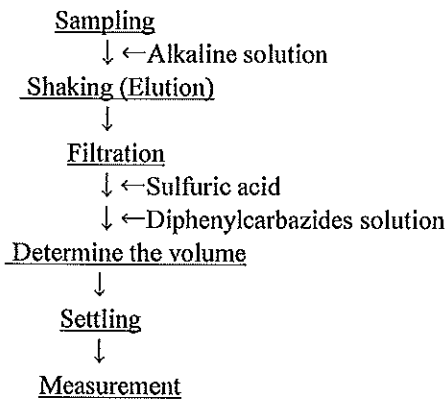
Pretreatment method of the Lead
 Pressurized acid decomposition
 (microwave decomposition method)



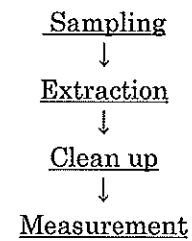
Pretreatment method of the Mercury
 Pressurized acid decomposition
 (microwave decomposition method)



Pretreatment method of the Hexavalent chromium
 Diphenylcarbazides absorptiometry



Pretreatment method of the PBB
 and PBDE



Table

Type of Test	Br	Result(lower limit)	Method	
			Pretreatment	Method of test
Polybrominated biphenyls (PBBs)	Mono	N.D.<5mg/kg	Solvent extraction	GC/MS
	Di	N.D.<5mg/kg		
	Tri	N.D.<5mg/kg		
	Tetra	N.D.<5mg/kg		
	Penta	N.D.<5mg/kg		
	Hexa	N.D.<5mg/kg		
	Hepta	N.D.<5mg/kg		
	Octa	N.D.<5mg/kg		
	Nona	N.D.<5mg/kg		
	Deca	N.D.<5mg/kg		
Polybrominated diphenyl ethers (PBDEs)	Mono	N.D.<5mg/kg	Solvent extraction	GC/MS
	Di	N.D.<5mg/kg		
	Tri	N.D.<5mg/kg		
	Tetra	N.D.<5mg/kg		
	Penta	N.D.<5mg/kg		
	Hexa	N.D.<5mg/kg		
	Hepta	N.D.<5mg/kg		
	Octa	N.D.<5mg/kg		
	Nona	N.D.<5mg/kg		
	Deca	N.D.<5mg/kg		